

## B. Long-billed birds.

i. *Certhia familiaris costæ*.

*Certhia costæ* Bailly, Observations sur les mœurs et les habitudes des oiseaux de la Savoie, 1847\*: Chambéry, Savoy.

Essentially a mountain species, inhabiting the Alpine system at elevations from about 1000 metres upwards.

ii. *Certhia familiaris pyrenaica*.

*Certhia familiaris pyrenaica* Ingram, *supra*: Cauterets, Pyrenees.

The upper forests of the Pyrenees.

iii. *Certhia familiaris corsa*.

*Certhia familiaris corsa* Hartert, Vög. pal. F. i. 1905, p. 320: Corsica.

The mountains of Corsica.

XXXIII.—On a Collection of Birds from Southern Abyssinia, presented to the British Museum by Mr. W. N. McMillan.—

Part I. PASSERES. By W. R. OGILVIE-GRANT.

(Plate XII.)

In the October number of the 'Ibis,' 1907, I published a report on a valuable collection of birds made by Mr. W. N. McMillan during an expedition to the Sobat and Baro Rivers in the Anglo-Egyptian Sudan, between November 1903 and March 1904. Mr. P. C. Zaphiro, a good field-naturalist and skilful taxidermist, was employed by Mr. McMillan, who in the most generous way placed the whole of his collection of birds at the disposal of the Natural History Museum.

Finding that this collection was most acceptable to the Museum, Mr. McMillan very wisely decided to employ the same collector to investigate the fauna of Southern Abyssinia, between Addis Abbaba and Lake Rudolf, where comparatively little collecting had been done.

\* I have been unable to see this rare pamphlet which is quoted by Bailly in his article in Bull. Soc. Hist. Nat. Savoie, 1852, p. 11.

Between the 20th of September and the 15th of November, 1904, Zaphiro collected in the neighbourhood of Addis Abbaba. On the 13th of December he commenced working southwards as far as Lake Zwai, and remained in that neighbourhood till the middle of February 1905. After another interval of two months he left Addis Abbaba on an extended trip which lasted till the 25th of September, 1905. Marching westwards, his route, which can be followed in detail both in the itinerary and on the map, led across the Gibbe and in Didessa Rivers, through Guma, Gomma, Jilma, and Kaffa to the Charada Forest, where nearly a fortnight was spent with great profit at varying altitudes of from 1000 to 6000 ft., and many rare and interesting species of birds were procured. Thence he continued his journey southwards through Konta, Kullo, Gofa, Uba, and the lower Omo River to the north-east end of Lake Rudolf, where he lingered for some days before turning eastwards to Lake Stefanie. The return journey northwards was by way of the Sagan River and Konso along the western shores of the great chain of lakes through Gamo, Baroda, Walamo, and Kambata.

A magnificent collection of more than three thousand bird-skins reached the Natural History Museum in 1906, and it seems necessary to offer some explanation and apology to Mr. McMillan for the long delay which has occurred in issuing a report which now appears for the first time. When the collection arrived, my colleague, the late Dr. Sharpe, expressed a wish to describe it himself. It was therefore placed in cabinets to await a favourable opportunity, which unfortunately never occurred up to the time of his death in 1909. Feeling that the Trustees of the Museum owed Mr. McMillan a very special debt of gratitude for again placing a most valuable collection of birds at their disposal, I have made every effort to get the present report finished, but the many calls on my time have greatly retarded the work.

Mr. D. A. Bannerman, who kindly undertook to make a preliminary examination of this large collection, has already described three species and a subspecies as new in the

Bulletin of the British Ornithologists' Club, xxvii. p. 84. and xxix. pp. 37-39 (1911). These are :—

*Anomalospiza macmillani*, p. 573.

*Eremomela elegans abyssinica*, p. 610.

*Bradyornis granti*, p. 631.

*Ortygops macmillani*, which will be mentioned in the second part of this report.

In addition to these I have distinguished as new in the present work :—

*Salpornis salvadorii abyssinica*, p. 597.

Also :—

*Poliospiza elgonensis* from Mt. Elgon, p. 581.

*Mirafra pæcilosterna jacksoni* from Kikuyu, p. 586.

Both based on specimens in the collection of Sir Frederick J. Jackson, which had been previously incorrectly identified.

Lastly :—

*Bradyornis infuscatus seimundi*, from Cape Colony, p. 636.

*Bradyornis infuscatus ansorgii*, from northern Benguela, p. 636.

It will be noted in looking through the following pages that a good many of the forms procured by Zaphiro were not previously represented in the National Collection, and of these we may mention the following :—

*Sitagra ocularia abayensis* (Neumann), p. 578.

*Zosterops omoënsis* Neumann, p. 594.

*Zosterops jubaënsis* Erlanger, p. 595.

*Zosterops virens kaffensis* Neumann, p. 596.

*Tschagra habessinica erlangeri* (Neumann), p. 600.

*Prionops cristatus omoënsis* Neumann, p. 603.

*Apalis flavocincta malensis* Neumann, p. 610.

*Phænicurus familiaris omoënsis* (Neumann), p. 614.

*Pentholæa pachyrhyncha* Neumann, p. 618.

= (*Pentholæa macmillani* Sharpe).

*Pinarochroa sordida schoana* Neumann, p. 619.

*Crateropus omoënsis* Neumann, p. 622.

*Pycnonotus arsinoë schoanus* Neumann, p. 624.

*Platystira cyanea æthiopica* Neumann, p. 628.

Other species procured represent rare forms of which the Museum possessed one or two examples only.

A review of the species of the genus *Bradyornis* will be found on pp. 632-637. In working out the species in the present collection it was found necessary to revise the whole genus, and it is hoped that the notes, which are here published together with a key to the species, may aid others in the identification of these difficult birds.

It is to be regretted that no field-notes of any kind were made by the collector, and even the Itinerary, which is given below, had to be prepared with much labour from the localities and dates furnished by the labels on the specimens.

The map (Pl. XII.), which has been specially compiled from the latest surveys with the utmost care by Mr. H. F. Milne of the Royal Geographical Society, will be found to contain most of the localities mentioned in the Itinerary, villages excepted, and should prove of great assistance to those studying this little-known part of Abyssinia.

In the quotations of authors given below the following abbreviations are used :—

Reichenow, "Vögel Afrikas," is quoted as "Reich."

Shelley, "Birds of Africa," is quoted as "Shelley."

### Itinerary of P. C. Zaphiro's Expedition.

September 1904 to September 1905.

#### 1904.

- Sept. 28-30. Mt. Yeka, 8000 ft.  
 30. }  
 October 1. } Addis Abbaba.  
 3. Akaki River.  
 4-5. Antoto.  
 6. Raguel.  
 7. Dildila, 8500 ft.  
 11. Addis Abbaba.  
 12-13. Akaki River.  
 14. Dildila.  
 15. Addis Abbaba.  
 16. Antoto.  
 17. Managasha Forest.  
 18. Addis Abbaba, 8000 ft.

#### 1904 (con.).

- October 19. Lake Koya.  
 22. } Goulala, Akaki River.  
 } Managasha Forest.  
 23. } Make River.  
 } Goulala, Akaki River.  
 24-28. Managasha Forest.  
 November 1. Wodjadja.  
 3-7. Mt. Barka, Managasha.  
 8. Managasha.  
 12. Holata.  
 13. Holata and Addis Alam.  
 14. Addis Alam.  
 Mt. Mergeta, 10,000 ft.  
 15. Sombo.



## 1904 (con.).

Between the 16th of November and 12th of December no collecting appears to have been done.

- December 13. Lake Koya.  
 14. Hawash River.  
 18-20. Lake Koya.  
 20. Lake Zwai.  
 23. Mukki R., Lake Zwai.  
 24-29. Lake Zwai.

## 1905.

- January 8. Lake Zwai.  
 9 10. Galla, Lake Zwai.  
 15-17. Maroko, Lake Zwai.  
 18. Lake Zwai.  
 19. Dipessa, Lake Zwai.  
 20-23. Bulbula, Suksuki R.  
 24. Djila, Arussi.  
 25 27. Ketchiba, Arussi.  
 February 1. Magno, Arussi.  
 2 3. Cathar R., Arussi.  
 4. Bourka, Arussi.  
 5. Dalota, Arussi.  
 6-10. Bourka, Arussi.  
 12-14. Lake Helene.

Between the 15th of February and the 19th of April no collecting appears to have been done.

- April 20-24. Roke, Gudr R., 3800 ft.  
 25. Gamu, Fato R., 2600 ft.  
 26. Woudinak R.  
 24-28. Sayo, Gibbe R.  
 29-30. Nono, 3600 ft.  
 31. Limmu, Urguessa R.,  
 May 3. } 2300 ft.  
 4-6. Didessa River.  
 7. Garoka, Banno, 1600 ft.  
 8 & 9. Wodetaka River, Guma,  
 2000 ft.  
 9. Gosso, Guma.  
 10. Didessa R., Gomma,  
 2000 ft.  
 11. Gale, Gomma, 2000-  
 3000 ft.  
 12. Sadeteka, Gomma, 5100 ft.

## 1905 (con.).

- May 13. Mammo, Jimma, 4200 ft.  
 14. Jiren, Jimma, 4200 ft.  
 15-19. Kindjo, Jimma, 4500 ft.  
 20. Kuda, Jimma, 4000 ft.  
 21. Teho Korssa, Jimma,  
 5000 ft.  
 25. Kuda, Jimma.  
 26. Gojeb R., Kaffa.  
 May 28 to } Charada Forest, Kaffa,  
 June 6. } 4000-6000 ft.  
 9. Adie Kola, Kaffa, 5600 ft.  
 10. Adie Kaka, Kaffa, 5400 ft.  
 12, 13. Dulla, Kaffa, 5000 ft.  
 14. Ela Plain, Konta.  
 15. Kowra, Konta, 4800 ft.  
 16. Choga, Kullo, 5200 ft.  
 17. Cateha, Kullo, 5500 ft.  
 17. Rotha, Kullo, 8000 ft.  
 18-19. Maila, Kullo, 6800-8000 ft.  
 20. Gendo, Kullo, 4200 ft.  
 21. Misha, Kullo, 7000 ft.  
 22. Dissa, Kullo, 4000 ft.  
 24. Omo R., Kullo.  
 25. Tchega, Gofa, 5500 ft.  
 26. Chacha, Gofa, 4200 ft.  
 27. Wurke, Gofa, 6000 ft.  
 28. Maaje, Gofa, 5100 ft.  
 30. Gofa, 6200 ft.  
 July 1. Laima, Gofa, 6900 ft.  
 2. Tanga, Gofa, 7200 ft.  
 6. Alba Hill, Gofa, 11,000 ft.  
 7-9. Djaoula, Gofa, 8200 ft.  
 9. Zendo R., Uba, 4700 ft.  
 10. Yella, Uba.  
 11. Uchotelhon, Uba, 4200 ft.  
 12. Zoula R., Uba, 4150 ft.  
 13. Bajka R., Baku, 4200 ft.  
 15. Acha Karo R., Baku,  
 4200 ft.  
 19. Tehalea R., Baku, 4000 ft.  
 20. Banna, N.E. of Lake Ru-  
 dolf, 2600 ft.  
 21-22. Achoa, Banna, N.E. of  
 Lake Rudolf, 2600 ft.

## 1905 (con.).

- July 22. Djaoula, N.E. of Lake Rudolf, 2300 ft.  
 23, 24. Nitij Dingai, N.E. of Lake Rudolf, 2350 ft.  
 27. Ato Chebai, N.E. of Lake Rudolf, 3000 ft.  
 28. Djaoula, N.E. of Lake Rudolf, 2300 ft.  
 August 1. Kerre, Omo R., 2000 ft.  
 3. Bume, Omo R., 2000 ft.  
 4-7. Lake Rudolf, 2000 ft.  
 10-13. Amar Koshi, Mircha, 2400-2800 ft.  
 14. Karmina, 2400 ft.  
 15. Menno, W. of Lake Stefanie, 2000 ft.  
 17. Lake Stefanie, 2000 ft.  
 18-19. Wandu, Metti, 2000 ft.  
 20. Dire, Sagan R., 2200 ft.  
 21. Watta, Sagan River.  
 24. Dalbana R., Konso, 3200 ft.  
 27-28. Duro, Konso, 3500 ft.  
 30-31. Gato R., Konso, 3800 ft.

## 1905 (con.).

- September 1. Soyo, Gamo, 3000 ft., Lake Ganjule (= Lake Bakate).  
 2. Elgo R., Gamo, 3000 ft.  
 3. Gamo, 3000 ft.  
 4. Sire R., Gamo, 2000 ft.  
 5. Ganta R., Gamo, 3000 ft.  
 7. Donne, Lake Abbaya.  
 8. Lake Abbaya (= Lake Margherita), 3000 ft.  
 10. Baroda.  
 11. Watchigo, Baroda, 3200 ft.  
 12. Mello, Baroda, 5600 ft.  
 13. Umbu, Walamo, 6000 ft.  
 14. Kucha Plain, Walamo, 6200 ft.  
 16. Gudeti, Walamo, 6200 ft.  
 17. Bedewotehow, Kambata, 6000 ft.  
 18. Artu, Kambata, 6000 ft.  
 19. Alaba R., Kambata.  
 20. Burburi R., Kambata, 6000 ft.  
 21. Wonebarak, Kambata, 6000 ft.  
 25. Alaba R., Kambata.

## Family STURNIDÆ.

## 1. CINNYRICINCLUS LEUCOGASTER.

*Cinnyricinclus leucogaster* (Gmel.); Reich. ii. p. 679 (1903).

Examples of the Northern Violet-backed Starling were obtained near Addis Abbaba, Mergeta Mountain, Nono, Urgessa River, Didessa River, Gomma, and Gamo.

## 2. CINNYRICINCLUS VERREAUXI.

*Cinnyricinclus verreauxi* (Bocage); Reich. ii. p. 680 (1903).

*Pholidungus verreauxi* Ogilvie-Grant, Trans. Zool. Soc. xix. p. 263 (1910).

Examples of the Southern Violet-backed Starling were obtained at Gamo, where five males were shot along with examples of *C. leucogaster*.

The occurrence of both these closely allied species of *Cinnyricinclus* in the same locality is distinctly interesting

and extends the known range of *P. verreauxi*, which had not previously been obtained so far north.

*C. verreauxi*, which is distinguished by having the outer web of the outer pair of tail-feathers partially white, ranges from South Africa northwards to the Congo, and to East and Central Africa (Fort Beni, Semliki Valley).

*C. leucogaster*, which has the outer web of the outer pair of tail-feathers uniform black, ranges from West Africa to North-east Africa and southwards to Niam-Niam.

### 3. CINNYRICINCLUS SHARPEI.

*Phollosanges sharpei* Jackson ; Ogilvie-Grant, Trans. Zool. Soc. xix. p. 263 (1910).

An immature example of Sharpe's Starling, which is a rare species, was procured in Kaffa on the 10th of June.

### 4. LAMPROTORNIS PORPHYROPTERUS.

*Lamprotornis porphyropterus* Heugl. ; Ogilvie-Grant, Ibis, 1907, p. 580.

Examples of this Purple-winged Glossy Starling were obtained in the neighbourhood of Addis Abbaba, Lake Helene, Lake Zwai, Bulbula, Uba, the Sagan River, and Baroda.

### 5. LAMPROCOLIUS CHALYBEUS.

*Lamprocolius chalybeus* Ehrenb. ; Ogilvie-Grant, Ibis, 1901, p. 611.

Examples of this Common Glossy Starling were procured at the Akaki River, Holata, and Mergeta, all in the neighbourhood of Addis Abbaba ; also at Baroda, Kullo, Genna, Walamo, Kambata, and on an island in Lake Zwai, where it was evidently breeding, as a quite young male example was obtained together with adult birds in December.

### 6. LAMPROCOLIUS CYANOGENYS.

*Lamprocolius cyanogenys* Sundev. Öfv. Vet.-Akad. Förh. 1850, p. 127. [N.E. Africa.]

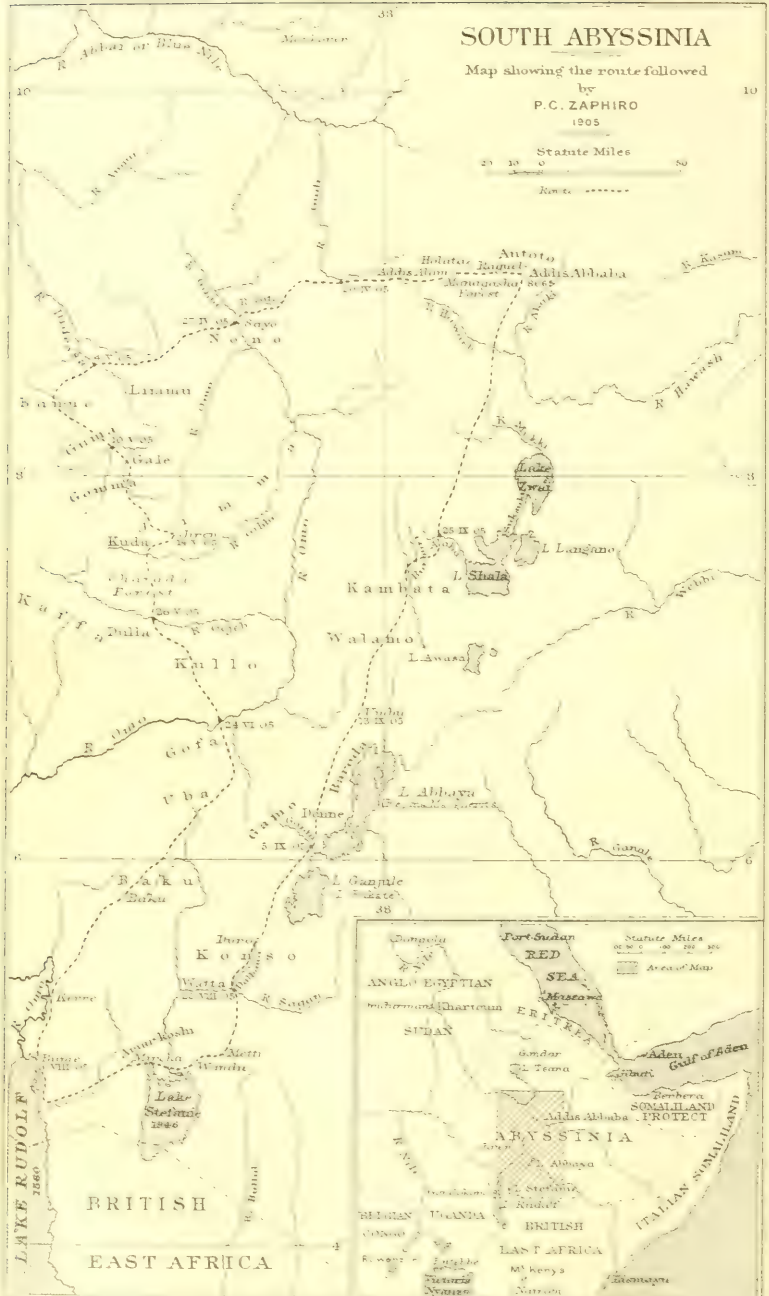
*Lamprotornis cyanogenys* Puch. Rev. Mag. Zool. 1858, p. 254.

As Pucheran pointed out in 1858, Abyssinian examples

# SOUTH ABYSSINIA

Map showing the route followed  
by  
P. C. ZAPHIRO  
1905

Statute Miles  
0 10 20 30 40 50  
Route .....



of the Little Glossy Starling differ from West African specimens of *L. chloropterus* Swains. in having a well-marked deep purplish-blue patch on the lesser wing-coverts. In *L. chloropterus* the wing-coverts are greenish steel-blue without any trace of purple. As this character appears to be perfectly constant in a tolerably large series of specimens from West Africa, I propose to distinguish the birds from N.E. Africa under the above name.

All the specimens procured by Zaphiro at Kullo and Gofa on the Omo River are immature, with the breast reddish-brown and the back dull golden-green.

Shelley, in his 'Birds of Africa,' v. p. 34 (1906), unites both the above-named smaller forms with the larger *L. sycohus* and *L. chalybeus*, all being placed under the latter name. On re-examining the question I am unable to agree with his conclusions, the differences between the various forms being easily recognised.

#### 7. SPREO SUPERBUS.

*Spreo superbus* (Rüpp.) ; Ogilvie-Grant, Ibis, 1901, p. 612.

Specimens of the Spreo Starling in adult plumage were obtained at Sombo, near Addis Abbaba, Bulbula, Lake Zwai, Kambara, and Baroda, and a female in immature plumage at Kerre on the Omo River in August.

#### 8. SPREO SHELLEYI.

*Spreo shelleyi* Sharpe ; Bannerman, Ibis, 1910, p. 293.

A single immature example of Shelley's Spreo Starling was procured at Lake Stefanie in August.

#### 9. CINNAMOPTERUS TENUIROSTRIS.

*Cinnamopterus tenuirostris* (Rüpp.) ; Reich. ii. p. 703 (1903) ; Ogilvie-Grant, Ibis, 1904, p. 255 ; id., Trans. Zool. Soc. xix. p. 265 (1910).

The series of the Slender-billed Red-winged Starling procured at Dildila near Addis Abbaba, Kullo, and Gofa, include two immature female examples, which resemble the male parent, but are of a duller colour and have a shorter tail. The reader is referred to my remarks recently published in

the 'Transactions of the Zoological Society,' and quoted above.

10. *AMYDRUS RÜPPELLI*.

*Amydrus morio rüppelli* Verr. ; Reich. ii. p. 699 (1903).

Rüppell's Red-winged Starling was procured at Dildila and in the Managasha Forest near Addis Abbaba, also in Kaffa and Kullo. A young male, killed in October, resembles the adult male, but has the iris blue-black, and shows very little gloss on the plumage; the first primary has the terminal third black, much as in *A. blythi*, an interesting point which has already been noticed by Dr. Reichenow.

11. *PŒOPTERA STUHLMANNI*.

*Pœoptera stuhlmanni* Reich.; Ogilvie-Grant, 'Trans. Zool. Soc. xix. p. 266 (1910).

Several specimens of Stuhlmann's Starling were procured at Kullo in the middle of June. Sharpe was no doubt correct in uniting *P. greyi* Jackson with the present species; the type-specimen from Nandi agrees perfectly with the males procured by Zaphiro at Kullo. A young male has the plumage similar to that of the female including the chestnut inner webs of the primary quills: a few darker feathers like those of the adult male are visible on the sides of the head and middle of the breast.

12. *CREATOPHORA CARUNCULATA*.

*Dilophus carunculatus* (Gmel.) ; Ogilvie-Grant, *Ibis*, 1907, p. 581.

Examples of the Wattled Starling were procured in Arussi, at Lake Helene, Konso, and Lake Ganjule. As is usually the case most of the specimens are immature birds and none show any trace of wattles. Those killed at Konso and Lake Bakate between the end of August and the beginning of September, are moulting the wing- and tail-feathers, and a specimen from the latter locality is the most adult in the series, its new quills being blackish with a cold greenish-lilac metallic gloss.



Family BUPHAGIDÆ.

13. BUPHAGA ERYTHRORHYNCHA.

*Buphaga erythrorhyncha* (Stanley) ; Ogilvie-Grant & Reid, Ibis, 1901, p. 612.

The Red-billed Ox-pecker, which was collected in the Barka Forest, near Addis Abbaba, at Lake Zwai and Kambata, calls for no special comment.

Family DICRURIDÆ.

14. BUCHANGA ASSIMILIS.

*Buchanga assimilis* (Bechst.) ; Ogilvie-Grant & Reid, Ibis, 1901, p. 613.

The African Drongo was met with about Lake Zwai, Kullo, Gofa, Konso, and also at Lake Rudolf.

Family ORIOOLIDÆ.

15. ORIOIUS GALBULA.

*Oriolus galbula* Linn. ; Ogilvie-Grant, Ibis, 1907, p. 582.

An immature male of the Common Golden Oriole was obtained at Holata on the 12th of November.

16. ORIOIUS AURATUS.

*Oriolus auratus auratus* Vieill. ; Neumann, J. f. O. 1905, p. 232.

An adult male and an immature male and female of the North African Golden Oriole were collected in Gofa on the 25th of June.

17. ORIOIUS LARVATUS ROLLETI.

*Oriolus rolleti* Salvadori ; Ogilvie-Grant, Ibis, 1891, p. 284.

*Oriolus larvatus rolleti* Neumann, J. f. O. 1905, p. 234.

A very large series of adult and immature examples of Rollet's Black-headed Oriole was procured in the following localities :—Gofa, Uba, Lake Rudolf, Lake Stefanie, Gamo, and Lake Abbaya, Lake Zwai and Lake Koya.

This form together with the typical *O. larvatus* and *O. per-*

*circuli* (which is easily distinguished by having the middle pair of tail-feathers black) belong to a section of the black-headed group of Orioles with the inner webs of the innermost secondary quills deep black and the outer webs olive margined with pale yellow. *O. monachus* and *O. m. permistus* belong to a different section of the black-headed group with the outermost secondary quills olive on both webs, only the inner margin being dusky. It is useful to bear these differences in mind as the birds are so much alike in general appearance that *O. l. rolleti*, were it not for its bright yellow rump, might easily be mistaken for *O. m. permistus*.

#### 18. ORIOULUS MONACHUS.

*Oriolus monachus* Gmel. ; Ogilvie-Grant, *Ibis*, 1904, p. 256.

*Oriolus monachus monachus* Neumann, J. f. O. 1905, p. 232.

*Oriolus meneliki* Blund. & Lovat ; Ogilvie-Grant, *Ibis*, 1900, p. 122, pl. ii. ; Salvadori, *Ibis*, 1900, p. 398 ; Ogilvie-Grant, *Ibis*, 1900, p. 565, figs. 1-2.

The McMillan collection contains a fine series of this interesting Oriole procured in the Managasha Forest near Addis Abbaba in October and November. The series is a very instructive one and clearly shows that the birds with a subterminal black band across the outer pairs of tail-feathers, described as *O. meneliki*, are not really separable from typical examples of *O. monachus* with the outer tail-feathers entirely yellow, both forms being found together in the same locality, and every intermediate kind of black marking, from a nearly obsolete bar to a strongly marked one, being found in different examples. The series proves that the various markings of the tail-feathers which are so puzzling are purely individual in character and have nothing to do either with age or with sex. Among three young birds with black bills, traces of yellow on the throat and yellow edges to the greater wing-coverts—all sure signs of immaturity—one has the three outer pairs of tail-feathers entirely yellow, with only a trace of olive at the base of the fourth pair ; a second

is almost similar, but has a little more olive on the base of the third, fourth and fifth pairs : while a third (the type of *O. meneliki*) has the basal half of the three outer pairs olive, with a subterminal black band on the third, fourth and fifth pairs. Among the adult examples with a red bill, pure black throat and uniform olive greater wing-coverts, the markings on the outer tail-feathers vary in a similar way, some having no trace of a black band and the outer pair pure yellow, while others have a more or less well-developed black band, irrespective of sex. It must, however, be noted that these curious dimorphic conditions do not appear to occur among birds obtained further north. Neither the birds collected by Degen on the Mogre River nor those obtained further north, in central and northern Abyssinia, show more than traces of a black bar on the outer tail-feathers. The black bar seems to be a character developed only in some individuals found in the more southern parts of the range of this highland species. The specimens with the black tail-bar are no doubt somewhat intermediate between the present form and *O. m. permistus*. Count Salvadori correctly pointed out in 1900 that *O. meneliki* was apparently founded on an immature example of *O. monachus*, and after examining the series of specimens from Shoa in the Turin Museum I confirmed his opinion. Subsequently, however, both Dr. Reichenow and Professor Neumann adopted the name *O. meneliki*, supposing it to be applicable to the more southern form found in Jimma and southwards towards Lake Rudolf, but the latter author afterwards discovered (J. f. O. 1905, p. 232) his mistake and named the darker southern form *Oriolus monachus permistus*, which is the name we here use.

*O. monachus* may be recognised by its golden-olive upper-parts, yellow rump and upper tail-coverts, and by having the outer pair of tail-feathers entirely yellow or nearly so, the terminal yellow portion of the darkest individuals being at least  $1\frac{1}{2}$  inches long. The black band across the outer tail-feathers, when present, is much narrower and less complete than in *O. m. permistus* and there is rarely any trace of it on the outermost pair.

The highland form *O. monachus* appears to be a rather larger bird than the more southern *O. m. permistus* as is shown by the following measurements, taken from a large series of specimens.

<i>O. monachus.</i>				<i>O. m. permistus.</i>			
10 Males.		6 Females.		5 Males.		7 Females.	
Wing.	Tail.	Wing.	Tail.	Wing.	Tail.	Wing.	Tail.
mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
136-147	84-91	132-141	89-95	130-140	88-95	130-138	79-85

#### 19. ORIOLOUS MONACHUS PERMISTUS.

*Oriolus meneliki* Neumann (nec Blund. & Lovat), J. f. O. 1903, p. 307.

*Oriolus monachus permistus* Neumann, Orn. Monatsb. 1904, p. 145 ; id., J. f. O. 1905, p. 233.

The fine series before us shows very clearly the marked differences between this darker southern Oriole and the more northern form mentioned above. Specimens have been examined from Gomma, Jimma, Kaffa, Baku, Kullo, and Kambata, and are easily distinguished from *O. monachus* (even those examples with a marked black band across the tail, such as in the type-specimen of *O. meneliki*) by having the subterminal black band across the four outer pairs of tail-feathers wide and strongly marked and extending over both webs of the outermost pair. The yellow tips contrast very sharply with the black subterminal portion, and are not more than an inch in length ; whereas in the darkest-banded examples of *O. monachus* from the Mauagasha Forest and from Harrar the yellow terminal portion of the outer pair of tail-feathers is at least  $1\frac{1}{2}$  inches in length.

*O. m. permistus* is more olive above than *O. monachus*, the rump, though yellower than the back, is never bright yellow as in the northern bird, and the black band across the four outer pairs of tail-feathers is always wide and strongly marked even on the outermost pair and is situated much nearer the extremity.

## Family PLOCEIDÆ.

## 20. VIDUA SERENA.

*Vidua serena* (Linn.) ; Shelley, iv. p. 16 (1905).

A large series of the White-breasted Whydah was procured, the species being found in almost every locality visited between Addis Abbaba and Lake Stefanie.

## 21. STEGANURA PARADISEA.

*Vidua paradisea* (Linn.) ; Shelley, iv. p. 25 (1905).

An out-of-plumage male of the Paradise Whydah was shot on the Elgo River, Gamo, on the 2nd of September.

## 22. COLIUSPASSER EQUES.

*Coliuspasser eques* (Hartl.) ; Ogilvie-Grant, Trans. Zool. Soc. xix. p. 290 (1910).

Two adult males of Speke's White-winged Whydah were procured, one on the N.E. shore of Lake Rudolf, the other at Gamo. There is also in the collection an immature specimen marked " ♀," which is almost certainly a young male as is shown by the measurement of the tail, 2·0 inches (50·5 mm.) ; in the female the tail is much shorter.

## 23. COLIUSPASSER LATICAUDA.

*Coliuspasser laticauda* (Licht.) ; Shelley, iv. p. 38 (1905) ; Neumann, J. f. O. 1905, p. 347.

The Red-naped Whydah was procured in Kaffa, Kullo, Gofa and Walamo ; all the specimens collected were adult males in full plumage with the exception of one young male in change. There is also an immature female believed to be of this species with the underparts light rufous-buff, brightest on the chest, which is indistinctly streaked with dusky on the sides ; the under wing-coverts are dark sooty-brown and the bastard primary is very short and pointed. Though this specimen differs much from the adult females of *C. laticauda* in the collection, I have no doubt that it has been correctly identified, younger examples of the nearly allied *C. ardens* being very similar.

24. *COLIUSPASSER MACROCERCUS*.

*Coliuspasser macrocercus* (Licht.); Shelley, iv. p. 52 (1905); Neumann, J. f. O. 1905, p. 347.

Lichtenstein's Yellow-shouldered Whydah was met with near Addis Abbaba, on the upper part of the Didessa River, in Gomma, Kaiša, Kullo and Walamo, at elevations varying from 1800 to 6200 feet. The males killed between the 20th of June and the 13th of October are in full plumage; those killed in May are in eclipse, and two males obtained on the 12th and 15th of June are specially interesting, being in moult and showing the change from the eclipse to the full plumage.

25. *UROBRACHYA PHŒNICEA*.

*Urobrachya phænicea* (Heugl.); Ogilvie-Grant, Trans. Zool. Soc. xix. p. 288 (1910).

A large series of Heuglin's Fan-tailed Whydah, consisting mostly of out-of-plumage birds, was procured near Lake Abbaya in January, and in Jimma in May, while two full plumaged males were killed in Kambata, near Lake Lamina, in September. Immature birds differ from the adults in eclipse in having the lesser wing-coverts blackish, edged with tawny-buff, instead of uniform orange-scarlet. The dark streaks on the chest and sides of the breast seem to vary individually, but are nearly absent in young birds. A specimen from Jimma, with a wing-measurement of 73 mm., is labelled "♀ ?," and is no doubt correctly marked: it appears to be assuming male characters, the black markings on the mantle being very heavy as in the male, while the lesser wing-coverts are largely mixed with orange.

26. *PYROMELANA FLAMMICEPS CRASPEDOPTERUS*.

*Ploceus craspedopterus* Bonap. Consp. Av. i. p. 446 (1850).

*Euplectes pyrrhizona* Heugl. J. f. O. 1864, p. 247.

*Pyromelana flammiceps petiti* (Prév. & des Murs); Neumann, J. f. O. 1905, p. 344.

All the adult males procured by Zaphiro differ from



typical examples of *P. flammiceps* in having the under tail-coverts white, often with black middles, a difference which has been lost sight of by recent writers.

The name *Loxia* (*Euplectes*) *petiti* Prév. & des Murs [*cf.* Voy. en Abyss. p. 112 (1845-50)], generally regarded as a synonym of *P. flammiceps*, cannot be applied to the present form, for the description is obviously founded partly on *P. flammiceps* and partly on *P. franciscana*, as is shown by the words "l'estomac et les couvertures inférieures de la queue rouge de feu," which can only apply to the latter species. On the other hand, the figure of "Ignicolor de Petit" (Atlas, pl. x. fig. 1) appears to have the under tail-coverts white as in all the specimens procured by Zaphiro, and the bird figured is a fairly accurate representative of them, except that the scarlet lower back and rump are not indicated. The British Museum does not possess any examples of *P. flammiceps* from Abyssinia. Prof. Neumann collected specimens at Madali and Abaï, on the upper Blue Nile, which he referred to *P. f. petiti*, but for the reasons given above, des Murs' name cannot be used, and we have therefore employed the next oldest name, which appears to be *Ploceus craspedopterus* Bonap. [*Consp. Av.* i. p. 446 (1850)]. Another name given by Heuglin (*cf.* J. f. O. 1864, p. 247) is *Euplectes pyrrhozona*, in which the white under tail-coverts are specially mentioned. He writes: "Von *E. petiti* scheint sich mein Vogel noch durch die weissen Unterschwanzdeckfedern zu unterscheiden."

Zaphiro secured a series of specimens at Didessa, Kouta, Kullo, Omo River, Gofa, Uba, Baku, and Gamo. Most of the birds obtained between May and September are in full plumage. But few females of this species were brought home.

## 27. PYROMELANA FRANCISCANA.

*Pyromelana franciscana franciscana* (Isert); p. 345, and *P. f. pusilla* Hartert; p. 346, Neumann, J. f. O. 1905.

*Pyromelana franciscana* Ogilvie-Grant, Trans. Zool. Soc. xix. p. 287 (1910).

The Red-throated Bishop-Bird was met with at Uba, Gamo, Lake Abbaya, and Lake Koya, where a few males, both adult and immature, were procured. Birds from Lake Stefanie have been separated as *P. pusilla* Hartert, on account of their slightly smaller size, but the difference is trifling. Adult males in the small series before me measure 63-64 mm., and immature examples 59-62 mm.

#### 28. PYROMELANA ANSORGEI.

*Pyromelana ansorgei* Hartert; Ogilvie-Grant, Trans. Zool. Soc. xix. p. 284 (1910).

*Coliuspasser dubiosus* Neumann, J. f. O. 1905, p. 348.

Adult males of Ausorge's Bishop-Bird were obtained at Kullo in June, and at Gofa in July. Prof. Neumann procured a male specimen at the Akobo River. The adult female appears to be still undescribed, but immature birds were obtained by the Ruwenzori Expedition.

#### 29. PYROMELANA XANTHOMELAS.

*Euplectes capensis xanthomelas* Rüpp.; Neumann, J. f. O. 1905, p. 346.

*Pyromelana xanthomelas* Ogilvie-Grant, Trans. Zool. Soc. xix. p. 287 (1910).

Rüppell's Black-and-yellow Bishop-Bird was met with only on the high ground in the neighbourhood of Addis Abbaba, ranging up to 8000 ft. on Mount Yeka. An example from the Managasha Forest marked "♀" has the chest and sides of the breast heavily streaked with blackish and appears to be an immature male.

#### 30. PLOCEIPASSER SUPERCILIOSUS.

*Ploceipasser superciliosus* (Rüpp.); Shelley, iv. p. 333 (1905); Neumann, J. f. O. 1905, p. 336.

An adult pair of the Chestnut-crowned Sparrow-Weaver are included in the present collection. A male from Gofa, 5500 ft., was shot on 25th of June, and a female from the plain of Kucha, 6200 ft., was obtained on the 14th of September.

This is rather a scarce species in collections, and Zaphiro remarked that he had never met with it previously.

Professor Neumann obtained four examples at Gelo and Kucha. The Boyd Alexander collection contains a series from West Africa, and the more southern part of its ranges.

31. *PLOCEIPASSER MELANORHYNCHUS*.

*Ploceipasser melanorhynchus* Rüpp.; Shelley, iv. p. 328 (1905).

*Ploceipasser mahali melanorhynchus* Neumann, J. f. O. 1905, p. 336.

The Black-billed Sparrow-Weaver was procured at Lake Rudolf, Uba, Lake Koya, and Lake Zwai. I may here remark that Mr. F. C. Selous has recently obtained two egg of this species on the Guaso Nyiro, and has kindly presented them to the British Museum, where they were hitherto unrepresented.

They are of a rather long and regular oval shape, thickly and finely mottled all over the shell with pinkish-brown surface-dots and pale grey undermarkings, the latter being somewhat larger. They measure respectively  $23.5 \times 17$  mm. and  $22 \times 17$  mm.

32. *QUELEA ERYTHROPS*.

*Quelea erythrops* (Hartl.); Shelley, iv. p. 117 (1905).

This scarlet-headed Dioch was only met with in Baku, where both male and female were obtained on the 19th-21st July. The occurrence of this bird in southern Abyssinia greatly extends its known range in East Africa, which is given by Reichenow as "Lake Albert to Useguha"; while Shelley says "Zanzibar district, south from the Tana River."

33. *QUELEA ÆTHIOPICA*.

*Quelea aethiopica* (Sundev.) ; Shelley, iv. p. 114 (1905).

Among the series of Diochs procured by Zaphiro at Baku, the Omo River, the north end of Lake Rudolf and Lake Stefanie, Walamo, and in the vicinity of Addis Abbaba, there are but few males in breeding-plumage, most of the specimens being out of plumage or immature. From Baku, Lake Rudolf, and localities at the north end of

Lake Stefanie, typical examples of *Q. athiopica* were procured with no trace of a black band on the forehead; but at Djaoula, a locality to the north-east of Lake Rudolf, a male of *Quelea quelea* was obtained with a well-marked black forehead, that colour extending over the crown to between the eyes. This specimen has the remainder of the crown and nape buff, tinged with pinkish, whereas in *Q. athiopica* the crown is pale buff, becoming brownish on the nape.

#### 34. QUELEA QUELEA.

*Quelea quelea* (Linn.) ; Shelley, iv. p. 111 (1905).

As remarked above, this western form of Dioch was procured at Djaoula to the north-east of Lake Rudolf.

#### 35. CRYPTOSPIZA SALVADORII.

*Cryptospiza salvadorii* Reich. ; Ogilvie-Grant, Trans. Zool. Soc. xix. p. 296, pl. xi. fig. 3 (1910).

Salvadori's Crimson-wing was fairly plentiful in the Charada Forest, Kaffa, at an elevation of 6000 ft., when Zaphiro visited that locality between the 2nd and 6th of June.

#### 36. SPERMESTES POENSIS.

*Spermestes poensis* (Fraser) : Ogilvie-Grant, Trans. Zool. Soc. xix. p. 290 (1910).

Two males of the Southern Black-and-white Mannikin from Kullo, 5200 ft., were obtained on the 16th of June.

#### 37. SPERMESTES SCUTATUS.

*Spermestes scutatus* Heugl. ; Shelley, iv. p. 170 (1905).

A large series of Heuglin's Bronze Mannikin was collected at the following places:—Gibbe River, Jimma, Gomma, Kullo, Gofa, Baku, and Konso.

#### 38. ORTYGOSPIZA POLYZONA.

*Ortygospiza polyzona* (Temm.) ; Shelley, iv. p. 155 (1905).

An adult female of the Many-barred Weaver from the plains to the south of Addis Abbaba is dated 11th of October.

## 39. AMADINA ALEXANDERI.

*Amadina fasciata alexanderi* Neumann, Bull. B. O. C. xxiii. p. 43 (1908).

Alexander's Ribbon-Finch was met with at Lake Helene on the 14th of February. It will be remembered that the late Boyd Alexander separated this Abyssinian form from the paler sandy-coloured bird from West Africa, figured in Brown's 'Illustrations of Zoology,' p. 64, pl. fig. 1 (1776); but he unfortunately renamed the latter bird [*cf.* Bull. B. O. C. xix. p. 104 (1907)], a mistake which Professor Neumann subsequently corrected.

## 40. PYTELIA SOUDANENSIS.

*Pytelia soudanensis* Sharpe; Shelley, iv. pp. 273, 274 (1905); Ogilvie-Grant, Trans. Zool. Soc. xix. p. 292 (1910).

A male and female of the Sudan *Pytelia* were procured at the north end of Lake Stefanie in August.

## 41. PYTELIA AFRA.

*Pytelia afra* (Gmel.); Shelley, iv. p. 269 (1905).

Two males and a female of the Grey-necked *Pytelia* were collected in Konso on the 27th of August. One of the males is an immature bird with only a few scarlet feathers on the sides of the head and throat and no orange band on the lower part of the chest.

## 42. NEISNA QUARTINIA.

*Coccyppgia quartinea* (Bonap.); Shelley, iv. p. 236 (1905).

*Neisna dufresneyi quartinia* Neumann, J. f. O. 1905, p. 350.

Some examples of this Waxbill, procured by Zaphiro, are much brighter than any of the specimens in the British Museum, having a conspicuous cinnamon-yellow patch on the middle of the breast. It was met with in the Managasha Forest, and to the west at Urguessa and Gamu, in the Charada Forest, Kaffa, and in Kullo.

## 43. HYPOCHERA ULTRAMARINA.

*Hypochera ultramarina* (Gmel.); Shelley, iv. p. 8 (1905).

The Ultramarine Combasou was met with at Dildila, near Addis Abbaba, and southwards at Uba, Baku, and Baroda.

## 44. AIDEMOSYNE CANTANS.

*Aedemosyne cantans* (Gmel.) ; Ogilvie-Grant & Reid, Ibis, 1901, p. 618.

*Uroloncha cantans* Shelley, iv. p. 152 (1905).

A female of the African Silver-bill was obtained at Lake Rudolf on the 5th of August. *Ai. orientalis* Lorenz & Hellm. has been discussed in the 'Ibis,' quoted above.

## 45. LAGONOSTICTA BRUNNEICEPS.

*Lagonosticta brunneiceps* Sharpe ; Ogilvie-Grant, Ibis, 1902, p. 405 ; Shelley, iv. p. 258 (1905) [part.].

*Lagonosticta senegalensis abayensis* Neumann, J. f. O. 1905, p. 349.

The Brown-capped Fire-Finch was found in the neighbourhood of Addis Abbaba, at the Akaki River in October and at Holata in November.

## 46. LAGONOSTICTA LARVATA.

*Lagonosticta larvata* (Rüpp.) ; Ogilvie-Grant, Ibis, 1900, p. 127.

*Estrilda larvata* Shelley, iv. p. 225 (1905) ; Neumann, J. f. O. 1905, p. 348.

An adult male in moult of Rüppell's Black-throated Wax-bill was procured at Garoka in Bunno on May 7. Neumann obtained an adult male at Kucha. It is probably one of the rarest Waxbills, and is very seldom received in collections. Lord Lovat obtained a somewhat immature male at Gelongol, S. Abyssinia, hitherto the only specimen in the Natural History Museum.

## 47. LAGONOSTICTA RHODOPAREIA.

*Lagonosticta rhodoparia* Heugl. ; Shelley, iv. p. 250, pl. xxxiv. fig. 1 (1905) ; Ogilvie-Grant, Ibis, 1908, p. 272 ; id., Trans. Zool. Soc. xix. p. 302 (1910).

A male was shot at Gomma on the 11th of May.

## 48. ESTRILDA BENGALIS.

*Estrilda bengalis* Linn. ; Ogilvie-Grant, Ibis, 1907, p. 584.

The Ruby-cheeked Cordon-bleu was procured at Gomma, Gofa, Baku, Uba, Lake Stefanie, and Konso.



49. *ESTRILDA PEASEI*.

*Estrilda peasei* Shelley, Bull. B. O. C. xiii. p. 74 (1903); Ogilvie-Grant, Ibis, 1907, p. 584.

Pease's Waxbill was met with in the Managasha Forest, on Mergeta Mountain, at Nono, in the Charada Forest in Kaffa, and in Kullo at altitudes varying from 3600 to 6800 ft. It is easily distinguished from *E. minor* by having the rose flush continued up to the white throat and the middle of the chest devoid of bars. After separating this form Shelley subsequently united it with *E. occidentalis* Fraser & Jardine, which is a very different bird with the white chest merely tinged with rose and the patch round the eye orange-scarlet instead of crimson-scarlet.

50. *ESTRILDA CHARMOSYNA*.

*Estrilda charmosyna* (Reich.); Shelley, iv. p. 232 (1905), *Estrilda nigriumentum* Salvad.; Ogilvie-Grant & Reid, Ibis, 1901, p. 619.

Shelley was no doubt right in regarding the above names as synonymous. The type of *E. charmosyna* was obtained at Berbera, and I have examined specimens in the British Museum procured by Mr. R. M. Hawker at Hargeisa and Jifa Medir, which lie just to the south, and from the Goolis Mts., collected by G. W. Bury; the type of *E. nigriumentum* was described by Salvadori from Shoa and I have examined birds from Tadejemulka and Owaramulka, both in Shoa, which do not differ from specimens from Berbera.

The present collection includes a male from Lake Zwai and a female from Lake Rudolf. The Black-faced Waxbill appears to be a rare bird and is seldom procured.

51. *SPORÆGINTHUS OCHROGASTER*.

*Estrilda ochrogaster* Salvad.; Shelley, iv. p. 217 (1905); Erlanger, J. f. O. 1907, p. 21.

*Sporæginthus margarita* Blundell & Lovat; Ogilvie-Grant, Ibis, 1900, p. 130, pl. iii. fig. 1.

*Sporæginthus ochrogaster* Ogilvie-Grant, Ibis, 1907, p. 583.

Two males and a female of the Buff-breasted Waxbill were procured at Gofa on the 30th of June.

This appears to be the most southerly locality for the species yet recorded. Zaphiro had previously met with it on the Baro River, and Erlanger found it at the Mukki River, in the Lake District. Though Lord Lovat met with a flock of close on a hundred at Gelongol, near the Didessa River, this species appears to be both rare and local, and is seldom procured. Professor Neumann did not meet with it.

52. *GRANATINA IANTHINOGASTER.*

*Uræginthus ianthinogaster* Reich.; Shelley, iv. p. 181 (1905).

The Purple-bellied Amaduvade was met with to the north of Lakes Rudolf and Stefanie in August. None of the specimens obtained are in full plumage.

53. *TEXTOR INTERMEDIUS.*

*Textor intermedius* Cab.; Shelley, iv. p. 317 (1905).

Adult and immature examples of Cabanis's Buffalo-Weaver were met with at Lake Zwai and northwards to Bourka, Arussi. I entirely agree with Shelley who has united *T. scioanus* Salvad. with the present species.

54. *DINEMELLIA DINEMELLI.*

*Dinemellia dinemelli* (Rüpp.); Ogilvie-Grant & Reid, Ibis, 1901, p. 623; Shelley, iv. p. 311 (1905).

A male and female of Dinemell's Weaver were procured at Lake Zwai in November and December.

55. *ANAPLECTES MELANOTIS.*

*Anaplectes melanotis* (Lafr.) ; Shelley, iv. p. 338 (1905).

The Red-winged Anaplectes was found at Guma, Kullo, Gofa, the north-east of Lake Rudolf, and Gamo. The series includes an immature male and female. Both these specimens have the outer webs of the primary and secondary quills orange, instead of scarlet. In the male the crown of the head is brown interspersed with a few scarlet feathers, while in the female that part is dull olive-green.

## ANOMALOSPIZA IMBERBIS (Cab.).

Great confusion has taken place with regard to this species. In the 'Catalogue of the Birds in the British Museum,' xii. p. 355, Sharpe gave a list of seven specimens, which he referred to *Serinus imberbis* Cabanis, but they have nothing to do with that species and are partly referable to *S. marshalli* Shelley and partly to *S. shelleyi* Neumann, if the latter is kept distinct from *S. sharpei* Neumann. Shelley (Birds of Africa, iii. p. 203) made much the same mistake, his *Serinus imberbis* being synonymous with *S. sharpei*. The species of the genus *Anomalospiza* closely resemble in general appearance those of *Serinus*, but possess a very small bastard primary, as in *Pyromelana flammiceps* and other species of Weavers; the shape of the culmen is also very remarkable, and this character alone should serve to distinguish at a glance the members of the genus *Anomalospiza*. Though widely distributed, *A. imberbis* (Cab.) is probably a rare bird, and is very seldom procured. The only example in the British Museum, in spite of what has been written to the contrary, is a male from Sierra Leone obtained by Mr. Robin Kemp. This specimen appears to agree entirely with the description and figure of the type-specimen from Zanzibar [*cf.* Van der Decken's *Reisen in Ost-Afrika*, iii. pt. i. p. 30, pl. ix (1869)]: also with the type-specimens of *Crithagra rendalli* Tristram from Barberton.

Zaphiro was fortunate enough to obtain an adult male and female of a second species of this remarkable genus, which has been named:—

## 56. ANOMALOSPIZA MACMILLANI.

*Anomalospiza macmillani* Bannerman. Bull. B. O. C. xxix. p. 37 (1911).

The adult male of this remarkable bird differs from the male of *A. imberbis* Cab., in having the general colour of the plumage duller; the crown of a more orange-yellow; the back less strongly streaked with black; and the chest, breast, sides, and flanks washed with olive, giving these

parts a more dusky appearance. Iris brownish-black. Wing 72 mm., tail 42.

*The adult female* is similar to the female of *A. imberbis*, but is without distinct dark shaft-streaks on the feathers of the chest, while those on the sides and flanks are much narrower and confined more or less to the shaft. Wing 64 mm.

The type of the male was procured in Jimma, at an altitude of 5000 feet, on the 21st of May, and of the female on the 8th of May at an altitude of 2000 feet.

#### 57. HETERHYPHANTES BAGLAFECHT.

*Othyphantes baglafecht* (Vicill.) ; Shelley, iv. p. 454 (1905).

*Othyphantes lovati* Shelley, t. c. p. 457.

*Plocens baglafecht* Vicill. ; Neumann, J. f. O. 1905, p. 337.

Examples of the Baglafecht Weaver were obtained in the neighbourhood of Addis Abbaba, in Guma, Jimma, Kaffa, Kullo and Gofa, between the months of May and October. In addition to these, the British Museum possesses specimens from Abyssinia killed at other seasons.

The large series now available for comparison, shot in almost every month of the year, has enabled me to prove that the *O. lovati*, separated by Shelley from *H. baglafecht* on account of its uniform green back and rump, is nothing more or less than the adult male of that species in nearly full breeding-plumage. Both males and females are generally in winter-plumage from November to January, and sometimes later, and are then perfectly similar to one another as described by Shelley. Some individuals, however, begin to put on breeding-plumage much earlier than others—and we find examples killed at Antoto in January which have already assumed the full breeding-plumage, except on parts of the back. Some individuals do not complete the olive breeding-plumage on the lower back and rump, and in others these parts remain in the light ash-brown winter-plumage with perhaps here and there an olive feather. Individuals vary greatly in this respect, and I have before me specimens killed at Antoto in the end of September with the entire

back and rump olive-green or with the upper back green and the lower back pale ash-brown. The amount of yellow on the underparts is also an extremely variable character, every male has the throat, chest, and breast bright yellow in breeding-plumage and in some individuals the belly, flanks, and thighs are of the same yellow colour, while in others the middle of the belly is whitish and the flanks, thighs, and under tail-coverts retain their pale ashy-brown winter-plumage, with here and there a yellow feather interspersed.

It is probable that the specimens with the entire upperparts olive and the entire underparts yellow, that is to say, birds in the most complete breeding-plumage, are the oldest examples. The female assumes a breeding-plumage like the male and varies in just the same manner, both above and below, but has the entire crown olive-green, like the back, instead of golden-orange, as in the male.

The young birds are easily distinguished from the adults in winter-plumage by having the feathers round the eye and on the lores, cheeks, and ear-coverts brownish-white instead of black; moreover, the chin is rusty white instead of yellow.

#### 58. *HETERHYPHANTES MELANOXANTHUS*.

*Heterhyphantes melanoxanthus* (Cab.); Shelley, iv. p. 383 (1905).

*Plocus nigricollis malensis* Neumann, J. f. O. 1905, p. 338.

*Heterhyphantes malensis* Shelley, iv. p. 384 (1905).

Mr. McMillan's collection contains adult males procured at the northern ends of Lakes Rudolf and Stefanie, where Professor Neumann also met with the types of his *P. n. malensis*. Our male examples show that the black stripe is continued behind the eye just as in typical examples of *H. melanoxanthus* from East Africa (Mombasa).

This species is quite distinct from *H. nigricollis*, of which Professor Neumann considers it a subspecies, having the occiput, back, and tail deep black, while in the latter the occiput is golden-orange like the crown, the back is greenish black and the rump and tail olive or brownish-olive.



59. *HYPHANTORNIS RUBIGINOSUS*.

*Hyphantornis rubiginosus* (Rüpp.) ; Shelley, iv. p. 432 (1905).

*Ploceus rubiginosus* Erlanger, J. f. O. 1907, p. 7.

Rüppell's Chestnut Weaver was recorded from Konta, Sagan River, Konso, Lake Bakate (= L. Ganjule), Gardulla, and Baroda.

Males, both adult and immature, were shot between the 20th and 30th of August in Konso, the adults being in full plumage, while the young males resemble the females ; one specimen, however, is moulting in chestnut feathers on the middle of the breast. The series is a very instructive one and a welcome addition to the National collection.

60. *HYPHANTORNIS ABYSSINICUS*.

*Ploceus cucullatus abyssinicus* (Gmel.) ; Neumann, J. f. O. 1905, p. 340.

A considerable series of the Abyssinian Weaver was procured at Lake Koya, Lake Abbaya, Arussi, Jimma, Guma, Gofa, Lake Rudolf, Konso, and Gamo between the months of January and September. The birds killed between December and February are out of plumage : males in full breeding-dress were obtained between June and September. It should be noted that these latter differ quite appreciably from the males of *H. abyssinicus* from the highlands of Abyssinia, about Lake Tsana, as well as from those from British East Africa, in having the underparts uniform bright yellow, washed with orange on the chest, while they lack the rich rufous-buff or almost chestnut tinge which characterises almost all the males from the above-mentioned localities. There are, however, one or two intermediate specimens from Eldoma, British East Africa, which make me hesitate to separate the southern Abyssinian specimens collected by Zaphiro. The females do not differ from those of typical *H. abyssinicus*, having the throat only yellow. In *H. feminina* O.-Grant, from Uganda and Ruwenzori, the female has the whole of the underparts yellow.



61. *HYPHANTORNIS INTERMEDIUS*.

*Hyphantornis intermedius* (Rüpp.) ; Ogilvie-Grant, Trans. Zool. Soc. xix. p. 276 (1910).

Specimens of the Intermediate Masked-Weaver differ in no way from those described in the Report on the Ruwenzori Expedition, quoted above. Full-plumaged males were procured on the Omo, at the northern end of Lake Stefanie, on the Sagan River and at Lake Abbaya, in August and September.

62. *HYPHANTORNIS VITELLINUS*.

*Hyphantornis vitellinus* (Licht.) ; Shelley, iv. p. 442 (1905).  
*Ploceus vitellinus vitellinus* Neumann, J. f. O. 1905, p. 341.

Full-plumaged males of the Vitelline Masked-Weaver were obtained at Gofa, at the northern ends of Lakes Rudolf and Stefanie, and in Konso.

63. *HYPHANTORNIS SPEKEI*.

*Hyphantornis spekei* Heugl. ; Shelley, iv. p. 414, pl. xl. fig. 2 (1905).

An adult male of Speke's Weaver-Finch was shot on the Akaki River near Addis Abbaba on the 3rd of October.

64. *HYPHANTORNIS TENIOPTERUS*.

*Hyphantornis teniopterus* (Reichenb.) ; Shelley, iv. p. 411 (1905).

*Ploceus taeniopterus* Neumann, J. f. O. 1905, p. 341.

Three full-plumaged males of Reichenbach's Masked-Weaver were obtained on the Omo River between the 1st and 3rd of August.

65. *HYPHANTORNIS GALBULA*.

*Xanthophilus galbula* (Rüpp.) ; Shelley, iv. p. 174 (1905).

A small series of Rüppell's Golden Weaver was obtained in the neighbourhood of Lakes Zwai, Abbaya and Stefanie. Full-plumaged males were killed towards the end of January, likewise examples only commencing to assume the breeding-dress. Immature birds of both sexes were collected in August and September and an adult female in December.

## 66. SITAGRA OCULARIA ABAYENSIS.

*Ploceus ocularius abayensis* Neumann, J. f. O. 1905, p. 339.

*Sitagra ocularia* (Smith) ; Ogilvie-Grant, Trans. Zool. Soc. xix. p. 280 (1910).

The series of this Spectacled Weaver procured in southern Abyssinia includes only three adult male examples and it is difficult to judge from these specimens as to the value of the characters ascribed to this subspecies by Professor Neumann. One male only has the hinder-part of the crown in full plumage and in that specimen the golden forehead does not extend over the head much beyond the eyes, the hinder-part being golden-olive. The difference between this specimen and typical *S. ocularia* is slight, but if constant may justify the separation of the southern Abyssinian bird. As regards *Ploceus ocularius suahelicus*, Neumann (J. f. O. 1905, p. 339), which is said to range in East Africa from the Zambesi and Mozambique to Mombasa and Lamu, I can see no reason for separating these birds from typical *S. ocularia*, in which I also include *P. crocatus* Hartlaub, as has already been explained in the Report on the Ruwenzori Expedition quoted above.

Zaphiro procured specimens at Lake Zwai, Arussi, Jimma and Kullo between January and June.

## 67. SITAGRA LUTEOLA.

*Sitagra luteola* (Licht.); Shelley, iv. p. 397 (1905); Ogilvie-Grant, Trans. Zool. Soc. xix. p. 281 (1910).

*Ploceus luteolus* Neumann, J. f. O. 1905, p. 341.

Examples of Lichtenstein's Weaver were collected at the River Mukki (west of Addis Abbaba), Lake Zwai, Arussi, Uba, at the north end of Lake Rudolf and in Gamo. Full-plumaged males were procured in July, August and September, and an adult male beginning to assume breeding-plumage in January, while a younger male, apparently assuming breeding-dress for the first time, was killed in September.

## 68. AMBLYOSPIZA MELANOTA.

*Amblyospiza melanota* (Heugl.); Shelley, iv. p. 307 (1905).

*Amblyospiza albifrons aethiopica* Neumann, J. f. O. 1905, p. 342.

Two adult males of Heuglin's Grosbeak-Weaver were obtained in Kullo on the 16th of June and in Baku on the 19th of July respectively. These are no doubt typical examples of *A. a. aethiopica* Neumann, and do not appear to differ in any way from the specimens collected on the lower slopes of Ruwenzori and in Uganda.

#### Family FRINGILLIDÆ.

##### 69. SPINUS CITRINELLOIDES.

*Chrysomitris citrinelloides* (Rüpp.); Ogilvie-Grant, Ibis, 1900, p. 134; id. & Reid, Ibis, 1901, p. 624.

*Spinus citrinelloides citrinelloides* Neumann, J. f. O. 1905, p. 354.

A fine series of the Abyssinian Citril Finch was procured in the neighbourhood of Addis Abbaba, also in Jimma, Kaffa, Kullo and Gofa.

The young male in the first autumn-plumage has the dark mask on the face greyish-black (not deep black as in the adult), the breast is washed with olive, and both the back and breast are more heavily streaked with blackish, as in the female.

Professor Neumann has recognised no fewer than four forms of *S. citrinelloides* as occurring between Abyssinia and Lake Nyasa, viz:—

1. *Spinus citrinelloides citrinelloides* Rüpp. From Shoa eastwards to Harrar and southwards to Lake Ganjule.
2. *S. c. kikuyensis* Neumann. From Lake Naivasha to Kikuyu and Kenia.
3. *S. c. frontalis* Reichenow. Lake Kivu to Victoria Nyanza and the Equatorial Province.
4. *S. c. hypostictus* Reichenow. Kilimanjaro to Lake Nyasa.

I agree with Professor Neumann that when fully adult males are compared, the Abyssinian bird may be readily recognized from those found in British East Africa and

southwards by the more yellowish-green colour of the upperparts which are less heavily streaked with blackish. I cannot, however, distinguish between the other subspecies which he admits and think they should all three be united under the name *S. c. hypostictus*, ranging from Lake Naivasha through the Lake District to Nyasa.

#### 70. SPINUS NIGRICEPS.

*Chrysomitris nigriceps* (Rüpp.); Ogilvie-Grant, Ibis, 1904, p. 260.

*Spinus nigriceps* Neumann, J. f. O. 1905, p. 354.

A small series of the Black-headed Siskin, a semi-alpine bird, was procured in the neighbourhood of Addis Abbaba at an elevation of about 9000 ft., but it was not met with elsewhere.

#### 71. PETRONIA DENTATA.

*Petronia dentata* (Sundev.); Shelley, iii. p. 261 (1902).

There is an immature male of a Rock-Sparrow in the collection, obtained in Arussi on the 2nd of February, which appears to belong to this species, but the wing-measurement is rather large, 82 mm. As Shelley has already hinted, it seems possible that it is the male only in this species which has the crown grey, and the eyebrow-stripe dull chestnut; but there are two specimens from Abyssinia collected by Blanford which show these characters and are marked as females.

#### 72. PETRONIA PYRGITA.

*Petronia pyrgita* (Heugl.); Shelley, iii. p. 263 (1902).

A female of Heuglin's Rock-Sparrow procured at the Dalbana River, Konso, on the 24th of August appears to be immature. It has the upperparts rather darker than in the adult and lacks the yellow spot on the throat.

#### 73. POLIOSPIZA TRISTRIATA.

*Poliospiza tristriata* Rüpp.: Shelley, iii. p. 229 (1902).

Examples of Rüppell's Seed-eater were obtained in the Managasha Forest, at Antoto and further south in Kullo. All belong to the typical Abyssinian form with the darker

breast and belly and not to *P. t. pallidior* Lort Phillips, from the Wagga Mountains.

In Sir F. J. Jackson's collection there are two adult male examples of a species of *Poliospiza* obtained at Mangiki, Mount Elgon, 6000 ft, in June and August, 1900. These specimens have been identified as *P. tristriata*, but are really very distinct and have a much longer wing.

The most closely allied form appears to be *P. leucoptera* from South Africa, which has the same double band across the wing, formed by the whitish tips of the median and greater coverts; but in that species the bill is much stouter, and the wing is much shorter.

I have therefore described the bird from Mount Elgon as:—

POLIOSPIZA ELGONENSIS.

*Poliospiza elgonensis* Ogilvie-Grant, Bull. B. O. C. xxxi. p. 17 (1912).

*Adult male.* General colour above earthy-brown, superciliary stripes white and extending to the occiput; feathers of the crown edged with white, giving these parts a distinctly streaked appearance; lores, cheeks, ear-coverts, and sides of the throat dark earthy-brown: median and greater wing-coverts and outer margins of the quills, especially the innermost secondaries, whitish, the light tips of the wing-coverts forming two bars across the wing; chin and middle of the throat whitish, with a few faint streaks of brownish; breast and sides of the body pale brown, indistinctly mottled with whitish, belly and under tail-coverts whitish. Wing 82–85 mm. (3·2–3·35 inches); tail 57–58 mm.

The present species resembles *P. reichardi* Reich., in the coloration of the upperparts, but the breast and sides are not streaked. It seems quite certain that *P. elgonensis* is not the fully adult of *P. reichardi* for the latter has been found breeding in its striped plumage.

*Hab.* Mount Elgon, 6000 ft.

Type in the British Museum: ♂. Mangiki, 14. vi. 00. Presented by Sir Frederick J. Jackson.

74. *POLIOSPIZA REICHARDI*.

*Poliospiza reichardi* Reich. ; Shelley, iii. p. 229, pl. xxvi. fig. 2 (1902); Erlanger, J. f. O. 1907, p. 28, pl. i. fig. 3.

The occurrence of Reichard's Seed-eater in Kullo extends its known range a long way to the north: a female was procured at Dissa on the 22nd of June. Hitherto it had been known to range from Nyasaland to the Kamassia Hills, British East Africa, which lie just north of the Equator.

Dr. Reichenow described what he believed to be a nearly allied form from Arussi, as *Poliospiza erlangeri* [cf. Erlanger, J. f. O. 1907, p. 28, pl. i. figs. 2a & 2b]. After examining these figures, which show a much straighter culmen, a strongly marked white eyebrow-stripe, and regularly streaked throat and breast, I am inclined to believe that the species has been founded on immature examples of *P. pallidior* Lort Phillips, which is a subspecies of *P. tristriata*. Immature examples of the latter agree in every particular with Dr. Reichenow's description of *P. erlangeri*. Above will be found the description of a nearly allied form met with by Sir Frederick Jackson on Mount Elgon, and which has hitherto been wrongly referred to *P. tristriata*.

75. *SERINUS FLAVIVERTEX*.

*Serinus flavivertex* (Blanf.) : Neumann, J. f. O. 1905, p. 354.

Blanford's Seed-eater is a rare and local species. Most of the specimens in the present collection were procured in the Managasha Forest, but it was also met with in Gofa.

76. *SERINUS MACULICOLLIS*.

*Serinus maculicollis* Sharpe ; Ogilvie-Grant & Reid, Ibis, 1901, p. 625.

Shelley [Birds Afr. iii. p. 191 (1902)] has united the present species with *S. dorsostratus* Reich., from Victoria Nyanza ; but the latter bird is easily distinguished by having the belly and under tail-coverts golden-yellow, like the breast, in the fully adult male. The present species has been met with by Sir Frederick Jackson in the Guaso Nyiro



district and at Elgeyu in the Kamassia Mountains, also by Mr. A. B. Percival at Kauro. A pair were collected by Zaphiro at Metti, to the north of Lake Stefanie.

#### 77. *SERINUS ICTERUS BARBATUS*.

*Serinus icterus* (Bonn.); Ogilvie-Grant, Ibis, 1900, p. 135.

*Serinus icterus barbatus* Neumann, J. f. O. 1905, p. 354.

I am not quite satisfied about the identification of the birds procured by Zaphiro at Guma, Gofa, and Djaoula, to the east of Lake Rudolf.

The bill is rather thicker and heavier than in *S. icterus*, and all the specimens lack the light yellow edges to the median and greater wing-coverts, which in most examples of *S. icterus* and *S. i. barbatus*, both old and young, form a conspicuous double bar across the wing. It must, however, be remarked that one of the four adult males killed on the 9th of July at Gofa shows traces of yellowish edges to the coverts, and new yellow-tipped feathers are moulting in.

#### 78. *SERINUS XANTHOPYGIUS*.

*Serinus xanthopygius* Rüpp.; Ogilvie-Grant, Ibis, 1900, p. 136; Shelley, iii. p. 220 (1902).

A single example of Rüppell's Yellow-rumped Canary was procured at Djaoula, in Gofa, at an altitude of 8200 ft. It is a rare bird in collections, though Heuglin says that it is to be met with in pairs and flocks on the stony districts of the Abyssinian highlands. Lord Lovat obtained a specimen at Gerra, to the north of Addis Abbaba; and, according to Hartlaub, specimens procured by Emin at Ugogo are referable to this species, in which case its range extends a long way to the south.

#### 79. *SERINUS REICHENOWI*.

*Serinus reichenowi* Salvad.; Shelley, iii. p. 219 (1902).

Reichenow's Canary was met with at Baku, Mireha, at the north end of Lakes Rudolf and Stefanie, Gamo, Walamo, Lakes Koya and Helene, and Bourka in Arussi. Zaphiro appears to have found it rather a common species and Sir A. E. Pease found it numerous at Kora, to the north of Lake Zwai, but Professor Neumann does not record it.

80. *SERINUS STRIOLATUS*.

*Serinus striolatus* (Rüpp.) : Ogilvie-Grant, Ibis, 1904, p. 260.

*Poliospiza striolata* Neumann, J. f. O. 1905, p. 353.

The Streaked Seed-eater was met with in the neighbourhood of Addis Abbaba, in Kaffa, Kullo, Gofa, and Walamo. The southern form from Ruwenzori and the Mufumbiro Volcanoes has recently been separated under the name *S. s. graueri* Hartert. Birds in May, June and July are in freshly moulted plumage, while those collected in October and November are much worn. Some specimens have the chin and upper part of the throat very distinctly washed with yellow; this is especially the case in a male from Managasha killed in October and a female from Jimma in May. The yellow wash is often more or less present and appears to be most pronounced in the oldest examples.

81. *EMBERIZA POLIOPLEURA*.

*Emberiza poliopleura* (Salvad.): Shelley, iii. p. 149. pl. xxiii. fig. 1 (1902).

The Somali Golden-breasted Bunting was only found at the north end of Lake Rudolf and in the country to the north of Lake Stefanie, about the Sagan River. Professor Neumann does not seem to have met with it. Two apparently immature birds marked female have the crown blackish chestnut, and the stripe down the middle pale rusty red: the fully adult female does not seem to differ from the adult male, for in the most mature specimen the crown is black and the median stripe white.

82. *EMBERIZA AFFINIS*.

*Emberiza affinis* Heugl.; Shelley, iii. p. 148 (1902).

*Emberiza affinis omoënsis* Neumann, J. f. O. 1905, p. 358.

Three examples of Swainson's Golden-breasted Bunting were procured in Jimma, Kaffa and Walamo respectively: they do not differ in any way from a typical example of *E. f. hesi* Hartl. from the Upper White Nile (= *E. affinis* Heugl.) and I do not therefore recognise *E. a. omoënsis* Neumann, which appears to me to be a pure synonym. This

Bunting is a very rare species in collections and was only represented in the British Museum by a single specimen.

83. *EMBERIZA HORTULANA*.

*Emberiza hortulana* Linn. ; Shelley, iii. p. 154 (1902).

The Ortolan was met with only in the neighbourhood of Addis Abbaba in the months of October and November. Both adult and immature birds are included in the series obtained.

84. *FRINGILLARIA TAHAPISI*.

*Fringillaria tahapisi* (Smith) ; Shelley, iii. p. 164 (1902).

This Rock-Bunting ranges over the greater part of tropical Africa, extending from the Cape to Shoa on the east and on the west to Gaboon. Zaphiro met with it at Addis Abbaba, Gofa, Baku, Konso, Baroda and Arussi.

Family ALAUDIDÆ.

85. *TEPHROCORYS RUFICEPS*.

*Tephrocorys ruficeps* (Rüpp.) ; Shelley, iii. p. 126 (1902).

*Calandrella ruficeps* Reichenow, iii. p. 379 (1909).

*Tephrocorys cinerea ruficeps* Neumann, J. f. O. 1906, p. 238.

The Abyssinian Red-capped Lark was only met with to the south of Addis Abbaba and at the Akaki River between the 11th and 13th of October. In the males the wing measures 92-94 mm.; in the females 81-88 mm. The females are distinctly smaller than the males and the black spots on the top of the head are not confined to the occiput, but extend forward over the crown to the forehead; in the adult male these parts are uniform chestnut.

86. *MIRAFRA DEGENI*.

*Mirafra degeni* Ogilvie-Grant, Ibis, 1904, p. 261, pl. v.

*Mirafra fischeri* Reichenow, iii. p. 339 (1904) [part.]

Examples of Degen's Lark from Uba, Baroda and Walamo agree perfectly with the typical specimens from Liben and with another from Kora, to the south of Addis Abbaba.

Dr. Reichenow, in his 'Vögel Afrikas' has united both

*M. degeni* and *M. zombie* with *M. fischeri*, but if he had ever examined specimens of the two first named, he would have doubtless recognised their very distinctive characters. [Cf. Trans. Zool. Soc. xix. p. 310 (1910).]

#### 87. MIRAFRA CANTILLANS.

*Mirafra cantillans* Blyth; Shelley, iii. p. 64 (1902).

An immature example of the Singing Bush-Lark was procured in Baroda, at 5000 feet, on the 12th of September. This appears to be a rare species in north-east Africa. It had previously been obtained by Mr. Hawker at Ujawa, in Somaliland, and by Sir Alfred Pease at Filwa, east of Addis Abbaba; the present record carries its known range about two hundred miles further south.

#### 88. MIRAFRA PÆCILOSTERNA.

*Mirafra pæcilsterna* (Reichenow); Reichenow, iii. p. 331 (1904).

This Sabota Lark was met with about the north end of Lake Stefanie and on the Sagan River, 2000–2800 feet, in August. The specimens all agree perfectly with typical examples procured on the Tana River by Mr. Gilbert Blaine; also with specimens from the Guaso Nyiro collected by Mr. A. B. Percival and with others from the same locality in Sir F. J. Jackson's collection.

Two birds in the latter collection from Kikuyu and the Athi River have the upper parts much darker, and the markings on the chest and the flanks deeper rufous than in typical *M. pæcilsterna*. They agree fairly well with the figure given by Shelley and apparently taken from a specimen collected by Abbott east of Kilimanjaro, but the general colour of the rufous portions of the plumage is of too rusty a red.

I propose to separate this bird subspecifically under the name

MIRAFRA PÆCILOSTERNA JACKSONI, subsp. n.

— *Mirafra pæcilsterna* Shelley, iii. p. 40, pl. xvi. fig. 1 (1902) [part.].

In two adult specimens, one of which is said to have been

a male, the wing measurements are 84 mm. and 92 mm. respectively.

Type in the British Museum: adult. Kikuyu, 5500 ft., 8. viii. 04. Presented by Sir Frederick J. Jackson.

#### 89. GALERIDA PRÆTERMISSA.

*Galerita prætermisssa* (Blanf.); Shelley, iii. p. 112 (1902).

*Galerida theclæ prætermisssa* Neumann, J. f. O. 1906, p. 238.

The Dark-crested Lark was obtained in the neighbourhood of Addis Abbaba between September and November. Two quite young birds were met with on the 1st and 3rd of November; they have the feathers bordering the crown, as well as the back, and wing-coverts blackish margined with light rufous and with a buff spot at the extremity. The wing varies in males from 99 to 102 mm.; and in females from 95 to 97 mm.

#### Family MOTACILLIDÆ.

#### 90. ANTHUS TRIVIALIS.

*Anthus trivialis* (Linn.); Shelley, ii. p. 299 (1900); Neumann, J. f. O. 1906, p. 230.

Examples of the Tree-Pipit were collected at Holata and Addis Alam in November, at Arussi in February, and at Baroda in September.

#### 91. ANTHUS LEUCOPHRYS SORDIDUS.

*Anthus leucophrys sordidus* Rüpp.; Neumann, J. f. O. 1906, p. 234.

*Anthus leucophrys omoënsis* Neumann, *t. c.* p. 234.

The series of specimens collected by Zaphiro in the neighbourhood of Addis Abbaba, Didessa, Kaffa, Gofa, Uba, Konso, Lake Abbaya, Walamo, Kambata and Arussi clearly all belong to one form and are no doubt referable to typical *A. sordidus* Rüpp. Professor Neumann has recognised a number of subspecies and has separated the birds from the Omo River district as *Anthus leucophrys omoënsis*, while those from Harar district have been distinguished by him as *A. l. saphiroi*. This latter appears to be a fairly recognisable paler race, but I must confess my inability to distinguish



between the birds from the Omo River and typical *A. sorridus*, all having the upperparts equally dark, though specimens in worn plumage are of course always much darker than freshly moulted examples, which still retain the greyish-brown edges to the feathers of the back.

As has already been pointed out by Dr. Reichenow [Vög. Afr. iii. p. 328 (1905)] *Anthus leucophrys* (Vieill.) [N. Dict. d'Hist. Nat. xxvi. p. 502 (1818)] must be used for the Cape Plain-backed Pipit instead of *Alda pyrrhonotha* Vieill. [N. Dict. d'Hist. Nat. i. p. 361 (1816)], the name used by Sharpe [Cat. Birds B. M. x. p. 555 (1885)]. The latter name, *Alda pyrrhonotha*, was founded on 'P'Alouette à dos roux' [Levaill., Ois. d'Afr. iv. p. 134, pl. 197 (1805)]. Both the figure and description of the latter unquestionably refer to the Lark at present known as *Heterocorys brevilinguis* Sundev., cf. Sharpe, Shelley, and other authors. This matter was evidently investigated years ago by G. R. Gray, who in Hand-l. ii. p. 123 (1870) correctly placed *A. pyrrhonotha* as a species of Lark in the genus *Megalophonus*, and the two specimens catalogued by Sharpe under *H. brevilinguis* "a, b. ad. sk. Interior of Cape Colony. Sir A. Smith [C.]" had previously been named "*Alda pyrrhonotha*" by G. R. Gray, when they formed part of the mounted collection at the British Museum.

## 92. ANTHUS CAMPESTRIS.

*Anthus campestris* (Linn.); Shelley, ii. p. 317 (1900); Reich. iii. p. 319 (1904).

Two examples of the Tawny Pipit were shot at Addis Abbaba on the 18th of October.

## 93. ANTHUS RUFULUS CINNAMOMEUS.

*Anthus rufulus* Vieill. ; Shelley, ii. p. 319 (1900).

*Anthus rufulus cinnamomeus* Rüpp.; Reich. iii. p. 313 (1904); Neumann, J. f. O. 1906, p. 231.

*Anthus cinnamomeus* Ogilvie-Grant, Ibis, 1907, p. 587.

The Rufous Pipit was met with near Addis Abbaba, at Lake Zwai, Kambata, Lake Abbaya, Kulio and Jimma. Specimens in moult were obtained in May and September.



94. *ANTHUS CERVINUS*.

*Anthus cervinus* (Pall.) ; Shelley, ii. p. 325 (1900) ; Neumann, J. f. O. 1906, p. 230 ; Ogilvie-Grant, Ibis, 1907, p. 587.

A male example of the Red-throated Pipit was killed at Lake Zwai on the 21st of December.

95. *MACRONYX FLAVICOLLIS*.

*Macronyx flavicollis* Rüpp. ; Shelley, iii. p. 11 (1902) ; Neumann, J. f. O. 1906, p. 237.

A large series of the Abyssinian Yellow-throated Pipit was procured between April and October, near Addis Abbaba, at the Akaki River, near Addis Alum, the Gibbe River, Jimma, Kaffa, Kullo, Gofa, Walamo and Kambata, at elevations varying from about 4000–11,000 feet. Blanford states that in northern Abyssinia it was never observed by him below 10,000 feet.

Immature examples killed at Kullo in June, and at Addis Abbaba in October have the anterior half of the superciliary stripe and throat pale buff like the rest of the underparts, the chest spotted with blackish, and the middle of the belly yellowish ; the upperparts, wings, and tail are like those of the adult.

96. *MOTACILLA ALBA*.

*Motacilla alba* Linn. ; Shelley, ii. p. 272 (1900).

*Motacilla alba dukhunensis* Sykes ; Neumann, J. f. O. 1906, p. 229.

An example of the White Wagtail was procured on an island in Lake Zwai on the 29th of December. This specimen has the wing-coverts blackish edged with white, and is no doubt of European origin.

97. *MOTACILLA LONGICAUDA*.

*Motacilla longicauda* Rüpp. ; Shelley, ii. p. 274 (1900) ; Neumann, J. f. O. 1906, p. 229.

The Long-tailed Pied Wagtail was met with in the neighbourhood of Addis Abbaba in September and October, and in Kaffa, Konta and Kullo in June.

## 98. MOTACILLA BOARULA.

*Motacilla melanope* Pall.; Shelley, ii. p. 282 (1900).

*Motacilla boarula* Linn.; Neumann, J. f. O. 1906, p. 230.

Two male examples of the Grey Wagtail were taken at Addis Abbaba on the 18th of October.

## 99. MOTACILLA FLAVA.

*Motacilla flava* Linn.; Shelley, ii. p. 286 (1900).

*Budytes flavus* Neumann, J. f. O. 1906, p. 230.

The Blue-headed Wagtail was met with near Addis Abbaba, round Lake Zwai, and at Walamo, 6000 ft., between September and January.

## Family NECTARINIIDÆ.

## 100. NECTARINIA METALLICA.

*Hedydipna metallica* (Licht.); Shelley, ii. p. 15 (1900).

*Nectarinia metallica* Ogilvie-Grant, Ibis, 1907, p. 588.

An immature male of the Yellow-breasted Long-tailed Sunbird was met with at Lake Helene on the 12th of February.

## 101. NECTARINIA PULCHELLA.

*Nectarinia pulchella* (Linn.); Shelley, ii. p. 23 (1900); Neumann, J. f. O. 1906, p. 256; Ogilvie-Grant, Ibis, 1907, p. 587.

The Northern Beautiful Sunbird was procured in the neighbourhood of Lakes Helene, Zwai, Abbaya, Bakate, Stenanic, and Rudolf. The series includes males in eclipse-plumage, and those beginning to assume breeding-dress, obtained in December; also birds in a still more advanced condition of moult, shot in the early part of February. Full-plumaged males were obtained in February, August and September.

## 102. NECTARINIA TACAZZE.

*Nectarinia tacazze* Stanley; Shelley, ii. p. 26 (1900).

*Nectarinia takazze takazze* Neumann, J. f. O. 1906, p. 257.

The Tacazze Sunbird was met with commonly in almost

every part of southern Abyssinia visited by Zaphiro, and he obtained a large series during the greater part of the year, but between the 15th of November and the 24th of April little collecting seems to have been done, and no specimens of this bird were obtained. This was unfortunate, as the males shot in the middle of November were just beginning to assume an eclipse-plumage on the head and throat, somewhat similar to that of the female : other males killed on the 24th of April are all in full plumage. This bears out exactly the observations made by Shelley on birds of this species collected by Antinori and Ragazzi. Immature males obtained in June resemble the female in general appearance, but the middle of the breast and abdomen is distinctly greyer and less yellowish and the metallic feathers of the adult are making their appearance on the throat, back, rump, and lesser wing-coverts.

I have already pointed out [Trans. Zool. Soc. xix. p. 316 (1910)] that in *N. cupreonitens*, I had good reason to believe that the males did not assume an eclipse-plumage, as was apparently proved by the collections made in South Africa by Mr. Claude Grant which contained full-plumaged males killed during every month of the year.

#### 103. CINNYRIS CUPREUS.

*Cinnyris cupreus* (Shaw) ; Shelley, ii. p. 36 (1900) ; Neumann, J. f. O. 1906, p. 251.

A series of the Common Copper-coloured Sunbird was procured in April and May, mostly between the Gibbe River and the Charada Forest, Kaffa. Two of the males shot on the 28th of April and the 7th of May are partially in adult plumage.

#### 104. CINNYRIS HABESSINICUS.

*Cinnyris habessinicus* (H. & E.) ; Shelley, ii. p. 46 (1900) ; Reichenow, iii. p. 484 (1905).

The Abyssinian Splendid Sunbird was met with near Lake Helene in February and at the north end of Lakes Rudolf and Stefanie in August. The British Museum possesses examples of this species, in the plumage described by Rüppell

as *C. gularis*, killed in January, May, August (in partial full plumage), October, and December; also many specimens in full adult plumage collected in February, March, July, August, September, November, and December. There can be no doubt that birds of the *C. gularis* type, in grey plumage and with the throat metallic green, are immature. There is no reason to suppose that the males when they have once assumed adult plumage ever lose it after the breeding-season. [*Cf.* Shelley, *t. c.* p. 47.]

#### 105. CINNYRIS OSIRIS.

*Cinnyris osiris* (Finsch); Shelley, ii. p. 53 (1900); Ogilvie-Grant & Reid, *Ibis*, 1901, p. 635.

*Cinnyris mariquensis hawkeri* Neumann; Reich. iii. p. 480 (1905); Neumann, J. f. O. 1906, p. 251.

The Abyssinian Bifasciated Sunbird was met with at Lakes Koya, Zwai and Helene, between December and February, all the males being in full adult plumage, except two specimens, which show a mixture of greyish feathers on the breast and belly: there is also an adult male shot in Konso in August.

*C. m. hawkeri* is based on birds in freshly moulted plumage. The differences in the metallic colours are due entirely to exposure, the green feathers becoming more copper-coloured as they become worn.

#### 106. CINNYRIS AFFINIS.

*Cinnyris affinis* Rüpp.; Shelley, ii. p. 64 (1900).

A series of examples of the Abyssinian Yellow-breasted Sunbird were collected near Addis Abbaba, and at the Gibbe and Didessa Rivers, also in Wandu, Gamo, Walamo, and at Lake Zwai.

All five males obtained between August and October are in full plumage; while all those met with in April and May are changing from what appears to be an immature plumage, brownish-grey above and pale yellow below, to the adult plumage; two male specimens obtained in June and July are in nearly full plumage. The out-of-plumage males killed in April and May seem to be adult, judging by the

rough scaling on the tarsus and other characters, in which case the male must assume an eclipse-plumage.

The series in the B.M. collection includes a male from Undul, N. Abyssinia, shot on the 19th of February by Blanford, and two males collected in God-jam on the 22nd of April by Mr. E. Degen; all these birds are changing into adult plumage, and are in a rather more advanced stage than those collected by Zaphiro. Again, there is a male from Lake Tsana obtained on the 19th of May by Degen which is not further advanced than those obtained by him a month earlier, this may possibly indicate that individuals from more northern parts of this bird's range assume their breeding-plumage rather later than those met with further south. Of course it still requires to be proven that the changing birds are not immature. Among the series obtained by Zaphiro in May some individuals are unquestionably young males beginning to assume their first adult plumage, but these are readily recognised by the smooth scaling of their tarsi and their shorter and more slender bills.

107. CINNYRIS CRUENTATUS.

*Chalcomitra cruentata* Rüpp. : Shelley, ii. p. 100 (1900).

*Cinnyris senegalensis scioanus* Neumann, J. f. O. 1906, p. 252.

The Abyssinian Scarlet-breasted Sunbird was procured at the Didessa River, and in Jimma, Kaffa, Konta, Konso, Gamo, Baroda, Walamo, Kambata, and near Lake Zwai. The series clearly proves that *C. s. scioanus* is synonymous with *C. cruentatus*. The supposed greater length of the wing in *C. s. scioanus* (72–77 mm.) is not borne out by the specimens, many north Abyssinian birds having a wing of 73–74 mm.

108. CINNYRIS RAGAZZII.

*Cinnyris obscurus ragazzii* Salvad.; Neumann, J. f. O. 1906, p. 249.

*Cinnyris ragazzii* Ogilvie-Grant, Trans. Zool. Soc. xix. p. 321 (1910).

Ragazzi's Olive Sunbird was met with on the Urguessa

River and in Jimma in May, also in Kaffa in June. It appears to be a rare species and the collector remarks that he never met with it before. I have already (*l.c.*) discussed the affinities of this species.

109. *ANTHOTHREPTES ORIENTALIS*.

*Anthothreptes orientalis* Hartl.; Shelley, ii. p. 145 (1890).

*Anthreptes longmari orientalis*, Neumann, J. f. O. 1906, pp. 244 & 247.

The Eastern Violet-backed Sunbird was met with in the district round the northern end of Lakes Rudolf and Stefanie in August and at Lakes Bakate and Abbaya in September.

Family ZOSTEROPIDÆ.

110. *ZOSTEROPS ABYSSINICA*.

*Zosterops abyssinica* Guérin; Shelley, ii. p. 192 (1900); Ogilvie-Grant, Ibis, 1904, p. 264; Reichenow, iii. p. 435 (1905).

The Abyssinian White-breasted White-eye was only met with in the neighbourhood of Lake Zwai in January and at Bourka, Arussi, in February.

111. *ZOSTEROPS OMOËNSIS*.

*Zosterops omoënsis* Neumann, J. f. O. 1906, p. 242.

A series of examples of the Omo White-eye was procured near the Gibbe River, at Gomma, Gofa, Uba, Baku, and the north end of Lake Rudolf. All bear out the characters for distinguishing the species from *Z. abyssinica* given by Professor Neumann, such as the yellowish olive-green back and brighter golden-green throat, while the horn-coloured bill and almost entire absence of yellow on the forehead distinguishes them at a glance from *Z. poliogastra*. It should be noticed, however, that in freshly moulted examples killed near the Gibbe River and in Gomma in April and May, the sides of the breast and flanks are distinctly washed with isabelline; whereas in birds from the type-locality, Gofa, Uba, etc. shot in July, there is very little trace of brown on the flanks. I have mentioned this as Professor Neumann notes it as a distinctive character.



Males and females are similar in size, the length of the wing varying from 54–57 mm.

112. *ZOSTEROPS POLIOGASTRA*.

*Zosterops polioastra* Heugl. ; Shelley, ii. p. 190 (1900) ; Neumann, J. f. O. 1906, p. 241.

*Zosterops polioastra erlangeri* Neumann, Bull. B.O.C. xxi. p. 60 (1908).

A male of Heuglin's White-breasted White-eye was procured in the Managasha Forest, near Addis Abbaba, on the 28th of October. A year later two males were collected in Walamo, 6200 feet, in September. The first named specimen is larger with a wing-measurement of 63 mm. ; while both the latter are rather smaller, measuring 57 and 58 mm. respectively. All these specimens have the sides and flanks in very worn plumage and are greyer than examples killed between December and May ; but an examination of the October specimen shows that the brownish feathers are partially grown. Neumann, who has separated the S. Abyssinian birds as *Z. p. erlangeri*, maintains that *Z. polioastra* is confined to N. Abyssinia, and has scarcely any yellow on the forehead, but an example from Tigrè does not differ in any way from the birds in the present collection.

Professor Neumann writes (Bull. B. O. C. xxi. p. 60) that the typical specimens of *Z. polioastra* have a yellow superciliary stripe which has been much exaggerated in the figure given in the 'Ibis,' 1861, pl. xiii. I have examined one of the typical examples from Semien kindly lent me by Dr. Van Oort and find that there is no trace of a yellow supercilium. I cannot see any reason for separating birds from northern and southern Abyssinia.

113. *ZOSTEROPS JUBAËNSIS*.

*Zosterops jubaënsis* Erlanger, Orn. Monatsb. ix. p. 182 (1901).

*Zosterops smithi* Neumann, Orn. Monatsb. x. p. 139 (1902).

The Juba or Ajuba White-eye was not previously represented in the British Museum. It is readily distinguished

from *Z. flavigularis* by the darker olive-colour of the upper-parts which are tinged with greyish, the narrower yellow frontal band and the paler yellow underparts. A series of specimens shows that there is no difference in size, as indicated by Reichenow [Vög. Afr. iii. p. 429 (1905)]. The specimens procured by Dr. Donaldson Smith at the Sillul River in Ogaden, Somaliland, were identified by Sharpe as *Z. flavigularis* and afterwards described by Prof. Neumann as *Z. smithi*. They appear to be identical with *Z. jubaensis*.

As regards *Zosterops tenella* Hartl. from Abyssinia, I cannot see that this bird is separable from specimens from Nyasaland and Mashonaland, which have been referred by Shelley to his *Z. anderssoni*, the type of which came from Elephant Vley, Damaraland. The Damaraland birds, though closely allied to Mashona and Nyasaland specimens, lack the distinct yellow band across the lores to the eye contrasting strongly with the olive plumage of the rest of the head. In *Z. anderssoni*, the yellow forehead, lores and ocular region shade imperceptibly into the yellowish-olive crown.

Both these birds are subspecies of *Z. senegalensis*, Bonap. which ranges from Gambia to the Bahr-el-Gazal and southwards to Kavirondo. In the Jackson collection there are two specimens with a wing-measurement of 55 mm., which appear to be referable to this smaller western form.

#### 114. *ZOSTEROPS VIRENS KAFFENSIS*.

*Zosterops virens kaffensis* Neumann, J. f. O. 1906, p. 243.

A large series of the Kaffa White-eye seems to differ constantly from *Z. v. schoana* Neumann, *Z. v. jacksoni* Neumann, and *Z. v. kikuyuensis* Sharpe, and bears out the characters pointed out by its original describer. The yellow on the forehead does not extend beyond a line drawn between the eyes. Specimens were obtained about the Gebbe and Dalassa Rivers, also in Gomma, Jimma and Kaffa, where it was common.

This White-eye was not previously represented in the British Museum.

## Family CERTHIIDÆ.

115. *SALPORNIS SALVADORII ABYSSINICA*, subsp. n.

*Salpornis spilnotus* nov. subsp. ? Neumann, J. f. O. 1906, p. 259.

A female of this Tree-Creeper was procured in thick forest at Nono near the Gibbe River on the 29th of April, and on the 31st a second specimen, a male, was shot at Limmu on the Urguessa River. These specimens are exactly alike in plumage and may be distinguished both from *S. salvadorii* (Bocage), and *S. s. emini* Hartlaub, by the distinctly rufous-buff colour of the breast and abdomen; the smaller white spotting on the mantle giving the upper-parts a darker appearance; and the rather shorter bill. The most distinctive character is the rufous colour of the under-parts. Iris, bill, and legs black.

It was no doubt an example of this subspecies that Professor Neumann obtained at Kaffa in March and referred to as a doubtfully distinct subspecies.

♂. Limmu, 31.iv.05.	Wing 93 mm.	} <i>Types of the</i> <i>subspecies.</i>
♀. Nono, 29.iv.05.	,, 93 mm.	

## Family PARIDÆ.

116. *PARUS LEUCOMELAS*.

*Parus leucomelas* Rüpp.; Ogilvie-Grant, Ibis, 1907, p. 588.

*Parus niger lacuum* Neumann, J. f. O. 1906, p. 260.

A large series of this Black Titmouse collected in all parts of southern Abyssinia seems to show that the birds found in the lake district, about Lake Zwai, are on the whole slightly larger than others met with in Kaffa, Kullo, Gofa and southwards about the north end of Lake Rudolf. Ten specimens from Lake Zwai have a wing-measurement varying from 83–91 mm. and eleven from the more southern districts vary from 79 to 86 mm. Under these circumstances *P. n. lacuum* cannot be upheld.

117. *PARUS LEUCONOTUS*.

*Parus leuconotus* Reich. iii. p. 513 (1905); Neumann, J. f. O. 1906, p. 261.

The Buff-mantled Black Titmouse was met with on the Gudr River in April, at Kindjo in Jimma in May, and in the vicinity of Addis Abbaba in October and November. On Mergeta Mountain near Addis Alam it was found to be numerous above 10,000 feet, but on the lower ground the species appears to be but thinly distributed and rather scarce. In some specimens killed in October and November the feathers of the mantle are very light in colour, nearly white; at that season the birds are in moult and the worn feathers are being replaced by fresh ones of a pale buff colour. Specimens from Jimma killed in May are also in full moult. It would thus seem as though this species undergoes two moults, one in autumn and one in early summer.

#### Family LANIIDÆ.

##### 118. *LANIUS NUBICUS*.

*Lanius nubicus* Licht.; Ogilvie-Grant, Nov. Zool. ix, p. 464 (1902).

*Fiscus nubicus* Shelley & Selater, B. Afr. v. pt. ii. p. 244 (1912).

A few examples of the Nubian Shrike were met with near Lakes Helene and Zwai between December and February. Shelley and Selater have included this species, which is a true Shrike, in the genus *Fiscus*, an arrangement which certainly appears to be a mistake. The female of *L. nubicus* is generally browner than the male and lacks the rust-red or chestnut patch of feathers on either flank, a character always found in the females of the various species of *Fiscus*.

##### 119. *LANIUS ISABELLINUS*.

*Lanius isabellinus* Hempr. & Ehr.; Ogilvie-Grant, Nov. Zool. ix. p 482 (1902).

*Otomela isabellina* Shelley & Selater, B. Afr. v. pt. ii. p. 293 (1912).

A male of the Pale Red-tailed Shrike was procured at Lake Zwai in January.

120. *LANIUS HUMERALIS*.

*Lanius humeralis* Stanley; Ogilvie-Grant, Nov. Zool. ix. p. 466 (1902).

*Fiscus humeralis* Shelley & Selater, B. Afr. v. pt. ii. p. 249 (1912).

A considerable series of Stanley's Fiscal Shrike was collected near Addis Abbaba, also in Jimma, Gofa, Kullo, and Lake Zwai district. In Gofa it was found breeding on Alba Hill at an elevation of 11,000 feet, and a half-grown female specimen in first plumage was procured on the 6th of July. Young were also obtained in May and June, at lower elevations, while a young male killed in October is beginning to assume adult plumage on the neck and mantle.

121. *LANIUS EXCUBITORIUS*.

*Lanius excubitorius* Des Murs; Shelley & Selater, B. Afr. v. pt. ii. p. 264 (1912).

All the specimens of the Grey-backed Fiscal Shrike in the present collection have but little black at the tips of the outer pair of tail-feathers, the amount varying from about half an inch to one inch in length.

They are therefore, as Shelley and Selater have pointed out, typical *L. excubitorius* with which *L. e. intercedens* Neumann from the Hawash Valley is entirely synonymous (cf. J. f. O. 1905, p. 228).

The species was widely distributed along the lake country from Addis Abbaba to Lake Stefanie. An interesting example in immature plumage was killed at Lake Abbaya on the 8th of September.

122. *TSCHAGRA JAMESI*.

*Telophonus jamesi* (Shelley); Neumann, J. f. O. 1907, p. 368.

*Tschagra jamesi* Shelley & Selater, B. Afr. v. pt. ii. p. 383 (1912).

James' Bush-shrike was met with only at the north end of Lake Stefanie. We have not examined examples of Professor Neumann's *T. j. kismayensis* from the coast districts of southern Somaliland, but his *T. j. maalanus* from

Manda Island is a well characterised form easily distinguished by its paler head with a broader black median band and by its browner back.

123. *Tschagra habessinica erlangeri*.

*Telophonus senegalus erlangeri* Neumann, J. f. O. 1907, p. 373.

*Tschagra habessinica erlangeri* Shelley & Selater, B. Afr. v. pt. ii. p. 371 (1912) [part.].

Erlanger's Black-headed Bush-Shrike was met with by Zaphiro throughout the greater part of his journey and was obtained in almost every month of the year.

The birds are on the whole rather larger and darker above than specimens of the true *T. habessinica* from northern Abyssinia.

In eleven males the wing measures from 53-62 mm., in three females it varies from 55.5-58 mm.

124. *Antichromus minutus*.

*Pomatorhynchus minutus* (Hartl.) ; Neumann, J. f. O. 1905, p. 221.

*Antichromus minutus* Shelley & Selater, B. Afr. v. pt. ii. p. 387 (1912).

The Lesser Bush-Shrike was met with near the Gibbe River, in Guma, Gomma, Jimma, Kaffa and Kullo, between April and June. I agree with Shelley and others in separating this species generically from the species included in *Tschagra*, for instance, *T. senegala*.

125. *Nilaus minor*.

*Nilaus afer minor* Sharpe ; Erlanger, J. f. O. 1905, p. 691.

*Nilaus minor* Shelley & Selater, B. Afr. v. pt. ii. p. 453 (1912).

The Lesser Brubru was met with in August in the country between the northern ends of Lakes Rudolf and Stefanie. Professor Neumann's division of this species into various forms (see J. f. O. 1907, p. 362), as Mr. Selater has already pointed out, appears to me quite inadmissible ; also, I



cannot see any reason for regarding *N. minor* as a subspecies of *N. afer*.

126. NILAUS AFER.

*Nilaus afer* (Lath.) ; Erlanger, J. f. O. 1905, p. 691 ; Shelley & Selater, B. Afr. v. pt. ii. p. 456 (1912).

*Nilaus afer hilgerti* Neumann, J. f. O. 1907, p. 362.

The Northern Brubru was procured at Bourka, about Lake Zwai, and at Kambata, between September and February. These southern Abyssinian birds have been separated by Professor Neumann under the name *N. a. hilgerti* on account of the supposed darker, broader, and more confluent chestnut markings down the sides of the body ; the character is, however, a very variable one, as is proved by the series before me.

127. LANIARIUS FUNEBRIS.

*Laniarius funebris* (Hartl.) ; Shelley & Selater, B. Afr. v. pt. ii. p. 327 (1912).

*Laniarius funebris rothschildi* Neumann, J. f. O. 1907, p. 595.

A male of the Slate-coloured Bush-Shrike was procured at Konso in August, and a female at Baku in July. These two specimens are typical examples of *L. f. rothschildi* Neumann, and they appear to be quite indistinguishable from typical *L. funebris* from German East Africa. The type-specimen of *L. funebris* was procured at Meninga on the Gombe River, about 200 miles east of Lake Tanganyika.

128. LANIARIUS ÆTHIOPICUS.

*Laniarius æthiopicus* (Gmel.) ; Neumann, J. f. O. 1905, p. 222 ; Erlanger, J. f. O. 1905, p. 697 ; Shelley & Selater, B. Afr. v. pt. ii. p. 312 (1912).

The Ethiopian Bush-Shrike was procured in the neighbourhood of Addis Abbaba, in October and November ; in Arussi, at Bourka, and in the neighbourhood of Lake Koya and Lake Zwai, in January and February ; and to the north-east of Lake Rudolf, in July.

## 129. LANIARIUS SULFUREOPECTUS SIMILIS.

*Laniarius similis* (Smith); Ogilvie-Grant, Ibis, 1907, p. 589.

*Chlorophoneus sulfureopectus similis* Shelley & Selater, B. Afr. v. pt. ii. p. 427 (1912).

The Yellow-fronted Bush-Shrike was met with in the lake country, between Lake Zwai and Lake Rudolf, in January and February and between July and September. If the sex in the series of specimens before me has been carefully determined the plumage is quite *alike* in both male and female, the latter also possessing a black band from the lores to the eye. The specimen described by Shelley (*op. cit.*) as the adult female is no doubt immature.

I cannot see any reason for placing the smaller forms, such as the present species, in a distinct genus, *Chlorophoneus*; they seem to be similar in every way, except size, to *L. approximans* and its allies.

## 130. LANIARIUS APPROXIMANS.

*Laniarius approximans* (Cab.); Ogilvie-Grant, Ibis, 1908, p. 287.

*Malaconotus approximans* Shelley & Selater, B. Afr. v. pt. ii. p. 412 (1912).

The Eastern Grey-headed Bush-Shrike belongs to the slightly larger race, which has been recognised by Professor Neumann as *Malaconotus poliocephalus schoenans*. Five males have a wing-measurement varying from 4·5 to 4·8 mm.; two females measure 4·5 and 4·7 mm. respectively.

## 131. LANIARIUS ERYTHROGASTER.

*Laniarius erythrogaster* (Cretzschm.): Ogilvie-Grant, Ibis, 1907, p. 589; id., Trans. Zool. Soc. xix. p. 340 (1910); Shelley & Selater, B. Afr. v. pt. ii. p. 325 (1912).

A single example of the Scarlet-bellied Bush-Shrike was procured to the east of Lake Rudolf in the early part of August.

The supposed subspecies *L. e. chrysostictus*, described by Dr. Reichenow from Adamaua, is founded on an individual variation.

132. *DRYOSCOPUS MALZACII*.

*Dryoscopus malzacii* (Heugl.); Erlanger, J. f. O. 1905, p. 699; Shelley & Selater, B. Afr. v. pt. ii. p. 346 (1912).

*Dryoscopus malzakii erythreæ* Neumann, J. f. O. 1905, p. 223.

A large series of Heuglin's Buff-backed Shrike, collected throughout the greater part of the year, shows very little variation in plumage; but some of the females have the underparts of the body more strongly washed with buff than others. The most brightly coloured bird in this respect is an immature male.

## Family PRIONOPIDÆ.

133. *EUROCEPHALUS RÜPPELLI*.

*Eurocephalus rüppelli* Bonap.; Erlanger, J. f. O. 1905, p. 689; Shelley & Selater, B. Afr. v. pt. ii. p. 447 (1912).

Rüppell's White-crowned Shrike was met with at the north end of Lake Rudolf, and northwards to Gamo, between July and September.

An immature female procured at Amar Koshi in August has the crown brown like the back, and the wing-coverts edged with pale brownish-white.

134. *PRIONOPS CRISTATUS OMOËNSIS*.

*Prionops cristatus omoënsis* Neumann, J. f. O. 1905, p. 216; Zedlitz, t. c. 1910, p. 795.

There is a large series of the Black-winged Helmet-Shrike in the present collection. The specimens killed at Lake Zwai in January, and at Magno, Bourka and Dalota in Arussi, in February, are in worn plumage and have the feathers on the hinder part of the crown brownish-grey with a distinctly rusty tinge, no doubt due to exposure. Those obtained between Lake Abbaya and Lake Rudolf, between June and September, are in fresh plumage and have the hinder part of the crown dark leaden-grey and the longer feathers of the crest above the eye rather better developed. There can be no doubt that all the specimens procured by Zaphiro are of the same form,

but whether they should be kept separate from typical *P. cristatus* from north Abyssinia I am unable to say; for the British Museum possesses only two specimens from that part and their exact habitat is doubtful.

Immature birds killed in June, July, and September have the head pure white and a short crest on the fore part of the crown; the feathers of the upper parts brownish with pale edges.

#### Family SYLVIIDÆ.

##### 135. MELOCICHLA MENTALIS.

*Melocichla mentalis* (Fraser); Ogilvie-Grant, Ibis, 1907, p. 594; id., Trans. Zool. Soc. xix. p. 346 (1910).

The Large Grass-Warbler was met with on the Urguessa River, also in Guma and Kullo.

##### 136. CISTICOLA ROBUSTA.

*Cisticola robusta* (Rüpp.); Ogilvie-Grant & Reid, Ibis, 1901, p. 652.

*Cisticola robusta robusta* Neumann, J. f. O. 1906, p. 264.

*Cisticola robusta schraderi* Neumann, t. c. p. 265.

The Great Abyssinian Fan-tail Warbler was procured at the Akaki River, near the Gibbe River, and in Jimma.

Professor Neumann has separated birds from Senafè, north Abyssinia, as *C. r. schraderi*, but I have compared examples collected by Blanford in that locality and find them to be quite indistinguishable from the specimens in the present collection and from those procured in Shoa, &c.

##### 137. CISTICOLA RUFÆ.

*Cisticola rufa* (Fraser); Sharpe, Cat. Birds B.M. vii. p. 252 (1883).

*Cisticola hypocantha* Hartl.; Neumann, J. f. O. 1906, p. 276.

The small Rufous Grass-Warbler was met with at Gomma in May, and at Gofa in July. Two adult males are assuming a dark striped plumage on the back, the third specimen, an immature female, is more rufous above. This species is evidently divisible into several races, but even

with the rather large material now available I have found it difficult to arrive at any satisfactory conclusion. The birds in the present collection appear to be indistinguishable from typical *C. rufa* from West Africa, and I have, therefore, used that name.

Hartlaub's *C. hypoxantha* seems to have been founded on the more rufous Uganda and British East African form, but the type-specimen (an immature bird, which came from Magungu, Lake Albert) seems to have disappeared (*vide* Neumann). In this form the black striped plumage on the upperparts is merely indicated in a few specimens.

Specimens from the Congo and Landana also represent a more rufous race, but are heavily striped in non-breeding plumage.

### 138. *CISTICOLA ERYTHROPS*.

*Cisticola erythrops* (Hartl.); Ogilvie-Grant, Trans. Zool. Soc. xix. p. 348 (1910).

The Buff-breasted Grass-Warbler was obtained at Lake Zwai on the 23rd of December; also at Konta and Kullo on the 15th and 16th of June. The birds killed in June are in breeding-plumage and have the crown and nape much browner than in the December bird, in which these parts are chestnut shading into rusty-red on the sides of the neck.

### 139. *CISTICOLA SEMITORQUES*.

*Cisticola semitorques* Heugl.; Reich. iii. p. 563 (1905).

Examples of this Plain-backed Grass-Warbler were obtained at Kullo in June, and at Gofa in July. The species is rare in Abyssinia and is seldom sent home in collections.

### 140. *CISTICOLA CHINIANA CANTANS*.

*Cisticola chiniana* (Smith); Reich. iii. p. 546 (1905) [part.].

*Cisticola cantans* (Heugl.); Reich. iii. p. 547 (1905).

*Cisticola chiniana simplex* (Heugl.); Reich. iii. p. 547; Neumann, J. f. O. 1906, p. 267.

The Abyssinian and East African form of the Larger Grey-backed Grass-Warbler was common in the vicinity of

Lake Zwai in January and February; it was also met with at Gofa, Lake Rudolf, Konso and Kambata, between July and September.

One somewhat immature male exhibits a variation in plumage, having the general colour above pale rufous.

I have spent some considerable time in studying the various forms of this widely distributed African species and have discussed them with Mr. W. L. Selater, but as he is at present engaged in working out the genus *Cisticola* I do not propose to offer any remarks on this puzzling group.

#### 141. *CISTICOLA STRANGEI*.

*Cisticola strangei* (Fraser); Ogilvie-Grant, Trans. Zool. Soc. xix. p. 353 (1910).

Strange's Grass-Warbler was met with at Yeka, near Addis Abbaba, Lake Abbaya, Jimma, Kafia, Konta, Kullo and Gofa.

A young specimen in first plumage, killed in July, has the upperparts light buff, streaked with black, and resembles the adult in winter-plumage.

#### 142. *CISTICOLA BRUNNESCENS*.

*Cisticola brunnescens* Heugl.; Reich. iii. p. 559 (1905).

*Cisticola hindei* Sharpe; Hinde, Ibis, 1898, p. 580, pl. xii. fig. 2.

Hinde's Grass-Warbler was only met with at Yeka, near Addis Abbaba, on the 30th of September. There can be no doubt that Heuglin's name, *C. brunnescens*, refers to this species. The male has the middle of the crown nearly uniform rufous-buff, with a dark streak over each eye and a black patch on the lores in front of the eye; the female has the crown of the head streaked with black like the back; and both sexes have a very distinct blackish patch on each side of the chest.

#### 143. *CISTICOLA NANA*.

*Cisticola nana* Fisch. & Reich.; Reich. iii. p. 560 (1905).

*Cisticola dodsoni* Sharpe; Reich. t. c.

Two examples of Dodson's Grass-Warbler were obtained at the north end of Lake Rudolf in August, and are in worn



plumage. It seems to be a very rare species and the British Museum previously possessed two examples only, the type of *C. dodsoni* Sharpe, from Haud, Somaliland, and a male from the neighbourhood of Kilimanjaro procured by Mr. R. Kemp and forming part of the Rudd collection. This latter specimen is, of course, a typical example of *C. nana*, which was first obtained by Fischer at Ngaruka, to the west of Kilimanjaro.

#### 144. *CISTICOLA CINEREOLA*.

*Cisticola cinereola* Salvad.; Ogilvie-Grant & Reid, Ibis, 1901, p. 651; Reich. iii. p. 548 (1905).

A female example of the Grey Grass-Warbler was shot in August at Menno, to the west of Lake Stefanie.

#### 145. *PRINIA ERLANGERI*.

*Prinia somalica erlangeri* Reich. iii. p. 592 (1905); Erlanger, J. f. O. 1905, p. 724.

*Prinia intermedia* Jackson, Bull. B. O. C. xxvii. p. 7 (1910).

There appears to be no doubt that *P. intermedia* Jackson is a synonym of *P. erlangeri*, which is now represented for the first time in the British Museum collection. Two males and a female were met with at the north end of Lake Stefanie in August; these agree perfectly with the type-specimen of *P. intermedia* which was obtained at the Guaso Nyiro in August. *P. somalica* is represented in the British Museum by four males from Berbera, killed in January and February; these are all much paler birds, but are in somewhat worn plumage, especially those killed in February, in which the wing- and tail-feathers are moulting. The new quills in these birds, though darker than those of the old plumage, are paler than in examples of *P. erlangeri*, which appears to be a well-marked darker form.

#### 146. *PRINIA MYSTACEA*.

*Prinia mystacea* Rüpp.; Ogilvie-Grant, Trans. Zool. Soc. xix. p. 366 (1910).

Two adult female examples of the Tawny-flanked Wren-Warbler were met with, one near Lake Zwai in January and the other in Jimma in May.

147. *ORTHOTOMUS MAJOR*.

*Orthotomus major* Blund. & Lovat; Ogilvie-Grant, Ibis, 1900, p. 158.

*Heliolais maior* Reich. iii. p. 570 (1905).

Two pairs of this rare Tailor-bird were collected by Zaphiro in Konta and Kullo between the 15th and 22nd of June, 1905. The type-specimen, a male in winter-plumage, with the crown and mantle vinaceous-red and the breast and belly very pale cinnamon, was shot by Lord Lovat at Gitemma, east of the Didessa River. The specimens in the present collection, and likewise an example killed by Emin Pasha at Tingasi in July, are in summer-plumage and have the crown and mantle much darker than in the type-specimen, while the chest and rest of the underparts are bright cinnamon, being of much the same colour as in breeding-specimens of *O. erythroptera*. The bill is light horn-colour as in the winter-bird.

Specimens of *O. erythroptera* in winter-plumage (January) have the crown and upperparts vinaceous-red, and the underparts below the chest pale cinnamon; in May and June the grey summer-plumage appears on the head and back, the breast and belly become brighter cinnamon and the bill becomes black (*cf.* Alexander, Ibis, 1902, p. 321). The Abyssinian *O. major* is easily distinguished by its much larger and stronger bill.

148. *SCHÆNICOLA APICALIS*.

*Schœnicola apicalis* (Cab.); Ogilvie-Grant, Trans. Zool. Soc. xix. p. 353 (1910).

The Fan-tailed Reed-Warbler is widely distributed in East Africa southwards of about latitude 8° north. Adult examples were met with at Gomma in May and at Konta in June, while an immature female with the throat, breast, and belly yellowish-white was obtained at Gofa in July.

149. *BRADYPTERUS CINNAMOMEUS*.

*Bradypterus cinnamomeus* (Rüpp.); Erlanger, J. f. O. 1905, p. 723; Ogilvie-Grant, Trans. Zool. Soc. xix. pp. 354, 355 (1910); Pyecraft, *t. c.* p. 454, text-fig. 14 (1910).

Rüppell's Reed-Warbler was met with only at Kullo at

an elevation of 8000 ft., on the 17th and 18th of June. Two examples have twelve tail-feathers, a third is incomplete (*cf.* remarks on the examples of this species from Ruwenzori in my paper quoted above).

150. CALAMONASTES SIMPLEX.

*Calamonastes simplex* (Cab.) ; Ogilvie-Grant & Reid, Ibis, 1901, p. 649 ; Erlanger, J. f. O. 1905, p. 722.

The Brown Bush-Warbler was met with only between Lakes Rudolf and Stefanie in the month of August. All the specimens procured were females, both adult and less mature, with the chin whitish and the underparts barred with dull white and dusky.

151. CAMAROPTERA GRISEOVIRIDIS.

*Camaroptera griseoviridis* (v. Müll.) ; Erlanger, J. f. O. 1905, p. 730 ; Neumann, J. f. O. 1906, p. 278 ; Ogilvie-Grant, Trans. Zool. Soc. xix. p. 364, pl. xix. fig. 10 (egg) (1910).

The Grey-breasted Bush-Warbler was met with at Gomma, Jimma, Konso, Gamo, Lake Abbaya (Margherita), and Lake Zwai, in various months of the year.

A quite young bird killed at Lake Abbaya in September has the crown and upperparts uniform olive-brown and the breast and belly whitish washed with yellow down the middle ; older examples killed in December and January have the crown and upperparts greyish-olive-brown, the chest tinged with brownish and the middle of the breast and belly mostly whitish ; the most adult examples have the crown and upperparts dark greyish-brown, and the throat and underparts generally grey, indistinctly barred, and the middle of the lower breast and belly more or less white.

152. EREMOMELA GRISEOFLAVA.

*Eremomela flaviventris griseoflava* Erlanger, J. f. O. 1905, p. 733.

Examples of the Yellow-bellied Bush-Warbler were met with in the lake country, from Lake Zwai southwards to Konso, north of Lake Stefanie. They agree perfectly with a specimen from north-east Abyssinia.

## 153. EREMOMELA ELEGANS ABYSSINICA.

*Eremomela elegans abyssinica* Bannerman, Bull. B. O. C. xxix. p. 38 (1911).

*Adult male and female.* Most nearly allied to *E. elegans* (Heugl.), from which they differ in having the head and nape rather darker grey and less clearly defined from the upperparts, which are of a much darker olive-colour; the breast, belly, and rest of the underparts are paler yellow. Iris and bill black. Culmen 10 mm.; wing 53; tail 39; tarsus 15.

A considerable series of this new Bush-Warbler was procured at the following localities: the Didessa River, Guma, Gomma, Kaffa, Kullo, Walamo, and Lake Zwai in January, May, June, and September. They do not seem to vary in plumage, and differ constantly from *E. elegans* in the characters given above.

## 154. APALIS FLAVOCINCTA MALENSIS.

*Apalis flavida malensis* Neumann, J. f. O. 1906, p. 278.

Professor Neumann obtained a male example of this bird in the Malo country in January. The McMillan collection contains five specimens obtained in August a little further south in the country to the north of Lakes Rudolf and Stefanie. They are considerably smaller than typical examples of *A. flavocincta* (Sharpe), and the males have the pale yellow band across the chest widely bordered both above and below with dark olive-green, much as in *A. viridiceps*, but with the dark olive bands more clearly defined. The females have the chest yellow, without any trace of darker bands above and below. The wing-measurement in the male is 47-48 mm.; in the female 44.5-47 mm.

## 155. APALIS PULCHELLA.

*Phyllolais pulchella* (Cretzschm.) ; Ogilvie-Grant, Trans. Zool. Soc. xix. p. 360 (1910).

The Beautiful Bush-Warbler was met with at Lakes Zwai and Abbaya in December and January, and at Gamo, Konso, and the north end of Lake Rudolf in August and September.

156. SYLVIELLA WHYTI.

*Sylviella whytii* Shelley ; Ogilvie-Grant, Ibis, 1900, p. 157.

*Sylvietta jacksoni* Sharpe ; Reich. iii. p. 627 (1905) ; Erlanger, J. f. O. 1905, p. 732.

Whyte's Crombec was met with in the lake country, between Lake Zwai and the north end of Lake Stefanie. Zaphiro notes that it was not very common about Lake Zwai where it inhabited the mimosa trees ; he also met with it at Lake Helene to the north, and at Kambata, Baroda, and Konso, in the months of January, February, August, and September.

7 ♂. Wing 56·5–61 mm. Average 60 mm.

2 ♀. „ 58, 62 mm. Average 60 mm.

157. SYLVIELLA BRACHYURA.

*Sylviella brachyura* Lafr. ; Ogilvie-Grant, Ibis, 1907, p. 593.

*Sylvietta brachyura nilotica* Neumann, J. f. O. 1906, p. 279.

A single example of the Short-tailed Crombec was obtained at the Gibbe River on the 28th of April.

158. SYLVIELLA MICRURA.

*Sylviella micrura* (Rüpp.) ; Ogilvie-Grant, Ibis, 1900, p. 154 ; 1907, p. 593.

*Sylvietta leucopsis* Reich. iii. p. 629 (1905).

In 'The Ibis,' as quoted above, I have given my reasons for retaining the name of *S. micrura* Rüpp. for the White-eye-browed White-throated Crombec, which inhabits East Africa from Bogosland, eastern Abyssinia, and Somaliland southwards to Kilimanjaro.

The present collection contains examples from the north of Lake Stefanie and from Gamo, killed in August and September.

159. SYLVIA CURRUCA.

*Sylvia curruca* Linn. ; Erlanger, J. f. O. 1905, p. 737.

The Lesser Whitethroat was met with in January and

February in the neighbourhood of Lake Zwai, and to the north at Lake Helene. The birds are attaining new greyish plumage on the crown and nape, and new greyish-brown feathers on the back; the newly moulted ear-coverts form a conspicuous dark grey patch.

160. *SYLVIA HORTENSIS*.

*Sylvia hortensis* Linn.; Ogilvie-Grant, Trans. Zool. Soc. xix. p. 357 (1910).

The Garden-Warbler was procured near the Gibbe River in April, and at Gamo in September.

161. *SYLVIA ATRICAPILLA*.

*Sylvia atricapilla* (Linn.); Ogilvie-Grant, Trans. Zool. Soc. xix. p. 357 (1910).

A pair of Blackcaps were procured in the neighbourhood of Lake Zwai in January.

162. *PHYLLOSCOPUS TROCHILUS*.

*Phylloscopus trochilus* (Linn.); Neumann, J. f. O. 1906, p. 284.

The Willow-Warbler was obtained in the Managasha Forest near Addis Abbaba in October and on the Gibbe River in April.

163. *HYPOLAIS PALLIDUS*.

*Hypolais pallidus* (H. & E.); Neumann, J. f. O. 1906, p. 284.

A female was procured at Lake Zwai in January.

Family TURDIDÆ.

164. *GEOCICHLA SIMENSIS*.

*Geocichla litsipsirupa simensis* (Rüpp.); Reich. iii. p. 680 (1905).

*Turdus simensis simensis* Neumann, J. f. O. 1906, p. 286.

The Abyssinian Ground-Thrush was met with in the more hilly parts of southern Abyssinia, about Addis Abbaba, the Gudr River, Jimma, Kullo, Gofa and Walamo, at elevations varying from 4000–8000 feet. It was not obtained in the lake district between Lake Stefanie and Lake Zwai.



165. *GEOCICHLA GURNEYI PIAGGIÆ*.

*Turdus gurneyi piaggæ* Bouvier ; Neumann, J. f. O. 1906, p. 286.

*Geocichla piaggæ* Ogilvie-Grant, Trans. Zool. Soc. xix. p. 368 (1910).

Piaggia's Ground-Thrush was met with in Kaffa in June and in Gofa in July. Bouvier's type-specimen of *Turdus piaggæ* (sic) was procured at Lake Sanne, Uganda, and is perfectly similar to the birds in the present collection. I have been unable to locate Lake Sanne; and Mr. Milne, of the Royal Geographical Society, has been unable to assist me in the matter. Sharpe (*cf.* 'Seebohm's Monograph of the Turdidæ,' i. p. 309 (1899)) was no doubt mistaken in believing it to be another name for Lake Tsana, in Abyssinia, but he was not then aware that this Thrush occurred in Uganda. It has been procured at Marsabit and Eldoma Ravine, and many were obtained by the Ruwenzori Expedition at elevations of from 5000-6000 feet.

166. *TURDUS OLIVACEUS ABYSSINICUS*.

*Turdus abyssinicus* Gmel.; Sharpe, in Seebohm's Monogr. Turdidæ, i. p. 309 (1899); Ogilvie-Grant, Trans. Zool. Soc. xix. p. 368 (1910).

In the Abyssinian Thrush the coloration of the chin and upper part of the throat varies a good deal in different individuals. In one female from Addis Abbaba (October, iris brown-black, bill reddish-orange, feet orange) these parts are unusually white and distinctly streaked with blackish, much as in typical examples of *T. olivaceus*, Linn., from South Africa, but in the latter the white area extends over the whole throat and the black streaks are coarser. Other examples from Gomma, Kaffa, Kullo and Gofa (May to July) have the chin and throat dusky like the chest, and only faintly streaked. These differences may be seasonal. An immature female with the breast heavily spotted with black was killed in Kullo, at 8000 feet, on the 17th of June.

167. *TURDUS LIBONYANUS PELIOS.*

*Turdus pelios* Bonap. ; Erlanger, J. f. O. 1905, p. 143 ; Reich. iii. p. 690 (1905).

*Turdus libonyanus pelios* Neumann, J. f. O. 1907, p. 285.

The Ethiopian Thrush was met with in various localities throughout the journey up to 5000 feet. One example from Uba, obtained on the 11th of July, is in very worn plumage and moulting heavily, both on the upper- and underparts of the body ; the innermost secondaries also and the three left-hand outer tail-feathers are being renewed. The typical form from South Africa is a much larger bird and has the markings on the sides of the throat blacker and more distinct.

168. *MONTICOLA RUFOCINEREUS.*

*Monticola rufocinereus* (Rüpp.) ; Reich. iii. p. 697 (1905) ; Neumann, J. f. O. 1906, p. 287.

Specimens of the Abyssinian Rock-Thrush were procured in Kaffa, Konta, Gofa, Baku and Kambata, also near Lake Zwai. They do not differ in any way from more northern examples.

169. *MONTICOLA CYANUS.*

*Monticola cyanus* (Linn.) ; Reich. iii. p. 700 (1905).

A male and female of the Blue Rock-Thrush were procured in the Managasha Forest in October and November.

170. *MONTICOLA SAXATILIS.*

*Monticola saxatilis* (Linn.) ; Reich. iii. p. 699 (1905).

Immature examples of the Rock-Thrush, both male and female, were procured near Addis Abbaba in November, and on the Urguessa River on the 31st of April.

171. *PHÆNICURUS FAMILIARIS OMOËNSIS.*

*Ruticilla galtoni omoënsis* Neumann, J. f. O. 1906, p. 294.

Male examples only of the Omo Redstart were met with in Kaffa, Kullo, and Gofa in June. One example from Kaffa, killed on the 13th of June, has very little chestnut-brown at the base of the middle pair of tail-feathers, and is

not distinguishable from *P. familiaris*. *P. f. omoënsis* is barely recognisable as a subspecies.

172. *PHENICURUS MESOLEUCUS*.

*Phenicurus bonapartei* (Müll.) and *P. mesoleucus* (H. & E.); Reich. iii. p. 781 (1905).

*Ruticilla phenicurus bonapartii* Neumann, J. f. O. 1906, p. 294.

Among the series of Ehrenberg's Redstart procured near Lake Zwai in January and February, we find specimens referable to *P. bonapartei*. An examination of the skins in the British Museum from Asia Minor and Arabia seems to show clearly that the distinctions founded on the greyer or blacker colour of the back are of no importance.

173. *COSSYPHA SEMIRUFA*.

*Cossypha semirufa semirufa* Rüpp.; Neumann, J. f. O. 1906, p. 283.

*Cossypha semirufa saturation* Neumann, *l. c.*

Typical examples of the Abyssinian Robin-Chat were met with in the neighbourhood of Addis Abbaba, ranging up to 10,000 feet on Mount Mergeta near Addis Alam. It was also obtained in Jimma and from Kullo, the birds from that locality having been separated (in my opinion quite unnecessarily) by Prof. Neumann as *C. s. saturation*. The typical form was also found in Arussi to the east of Lake Zwai, while further east its place was taken by the following subspecies :—

174. *COSSYPHA SEMIRUFA DONALDSONI*.

*Cossypha semirufa donaldsoni* Neumann, J. f. O. 1906, p. 283.

*Cossypha semirufa* Ogilvie-Grant, Ibis, 1904, p. 270 [part. Harrar].

A single example of this rather larger form, with grey wings and the middle pair of tail-feathers black, was obtained at Bourka on the 9th of February, when Zaphiro was apparently on his way to Harrar.

175. *COSSYPHA HEUGLINI*.

*Cossypha heuglini* Hartl. ; Reich. iii. p. 758 (1905) ; Neumann, J. f. O. 1906, p. 282 ; Ogilvie-Grant, Trans. Zool. Soc. xix. p. 370 (1910).

Heuglin's Robin-Chat was met with in Walamo, at the Omo River, and in Gofa.

176. *COSSYPHA VERTICALIS MELANONOTA*.

*Cossypha verticalis melanonota* (Cab.) ; Reich. iii. p. 762 (1905).

*Cossypha melanonota* Ogilvie-Grant, Trans. Zool. Soc. xix. p. 371 (1910).

The specimens of the Black-backed Robin-Chat appear to belong to this darker and more southern form and not *C. verticalis*. The two birds are very closely allied, and greyer individuals of the present form are almost indistinguishable from Senegambian birds with their lighter coloured backs.

177. *COSSYPHA NATALENSIS*.

*Cossypha natalensis* Smith ; Reich. iii. p. 754 (1905).

A single male example of the Natal Bush-Chat was procured in the Charada Forest, Kaffa, at an elevation of 3000 feet, on the 28th of May. Zaphiro, never having met with the species before, recorded the soft parts as follows : "iris black ; bill black ; legs brown." This specimen closely resembles the type, obtained in Natal, in the richer colour of the crown, mantle, lower back, and rump ; only the sides of the mantle and an indistinct band across the middle of the back being dark slate-colour. Dr. Reichenow records the species as occurring from Juba in Somaliland to Natal, etc. ; but it has never, until now, been represented in any of our collections from southern Abyssinia. It appears to be a rare bird living in thick forest, where it is difficult to procure specimens. Mr. Swynnerton found it common in Chirinda, S. Rhodesia, and obtained its nest and eggs.

The Charada bird is rather large with a wing measuring 99 mm. (3·9 inches). Other males from more southern

localities are smaller, the longest wing-measurement being about 94 mm.

178. *CICHLADUSA GUTTATA*.

*Cichladusa guttata* Erlanger, J. f. O. 1905, p. 753 ; Reich. iii. p. 766 (1905).

*C. g. guttata* Neumann, J. f. O. 1906, p. 283.

The Spotted Robin-Thrush was met with near Lakes Rudolf and Stefanie, also in Uba and Konso, in July and August. Two younger examples, evidently birds of the year, have the spots on the chest distinctly smaller than in the adult specimens and fringed with creamy white.

Mr. Bannerman ('Ibis,' 1910, p. 695) has noted the difference in size between the birds found in the coastal districts of East Africa and those found inland, a point which Sharpe had already drawn attention to, when he named the coastal form *C. rufipennis* [*cf.* Bull. B. O. C. xii. p. 35 (1901)].

179. *ERYTHROPYGIA LEUCOPTERA*.

*Erythropygia leucoptera* (Rüpp.) ; Erlanger, J. f. O. 1905, p. 754 ; Reich. iii. p. 773 (1905).

*Erythropygia leucoptera leucoptera* Neumann, J. f. O. 1906, p. 284.

The Abyssinian Ground-Robin was met with on the northern shores of Lakes Rudolf and Stefanie in July and August.

180. *THAMNOLEA SEMIRUFA*.

*Thamnolea semirufa* Erlanger, J. f. O. 1905, p. 744 ; Reich. iii. p. 701 (1905) ; Neumann, J. f. O. 1906, p. 288.

The Chestnut-breasted Robin appears to be fairly common throughout southern Abyssinia, and specimens were obtained in most months of the year. Prof. Neumann has already pointed out that the sexes in this species are quite unlike in plumage, and that the females have generally been regarded as immature birds. In the most adult female examples the pale rust-coloured band down the middle of the throat is absent, but in younger specimens it is more or less well represented. Young birds are easily recognised by

their spotted plumage, the feathers of both the upper- and underside being spangled with pale fulvous at the tips. Birds in first plumage were procured in May and September, but in the latter month much of the adult plumage had made its appearance on the underparts.

An immature male, killed in October, has nearly assumed the fully-adult plumage, but the crown, back, throat, etc., are still more or less spotted with buff.

181. *THAMNOLEA ALBISCAPULATA*.

*Thamnolea albiscapulata* (Rüpp.) ; Reich. iii. p. 703 (1905) ; Neumann, J. f. O. 1906, p. 288.

A few specimens of the Abyssinian White-shouldered Robin were met with, a male in Arussi, east of Lake Zwai, in January ; a pair on the Gudr River in April ; and two males at Sadeteka, in Gomma, in May. It is evidently a much rarer species than the last-named. The female is like the male, but lacks the white shoulder-patch.

182. *THAMNOLEA SUBRUFIPENNIS*.

*Thamnolea subrufipennis* Reich. ; Reich. iii. p. 702 (1905).

An adult male of the Chestnut-vented Robin, obtained at Kullo on the 26th of May, is the only representative of this species in the present collection. It is, however, of especial interest, as the species has not previously been met with in Abyssinia. It was known to range from the vicinity of Lake Victoria to Nyasaland, and its occurrence at Kullo therefore extends its habitat a long way further north. Both in this species and in the allied *T. cinnamomeiventris* (Lafres.), in which the under tail-coverts are chestnut, the females are quite different in plumage from the males. The head, neck, chest and mantle, as well as the lesser and median wing-coverts, are dark slate-grey instead of black, and the white shoulder-patch is absent.

183. *PENTHOLEA PACHYRHYNCHA*.

*Pentholea albifrons pachyrhyncha* Neumann, J. f. O. 1906, p. 289 (April 1906).



*Pentholæa macmillani* Sharpe, Bull. B. O. C. xvi. p. 126 (10th July 1906) [ ♀ ].

This species of Black Chat has the sexes differently coloured.

The male is distinguished from the male of the allied form *P. albifrons* (Rüpp.) from northern Abyssinia by having the white on the crown more extended, reaching nearly to the occiput.

The female, which was described as a new species by Sharpe under the above name, *P. macmillani*, has the general colour of the plumage browner than in the male, inclining to greyish on the forehead and crown; the feathers from the base of the bill to above the eye, together with the chin and throat, are pale greyish-isabelline and some of the feathers of the breast are fringed with the same colour.

The female of *P. albifrons* has the plumage brownish-black, only the feathers on the chin and upper throat being narrowly fringed with greyish.

The male has the iris crimson-black, the bill and feet black; the female has the iris black.

This species appears to be rare and very local in its distribution, and was met with only in Gofa in the forest of Chacha 4200 feet, at Wurke 6000 feet, and at Maaje 5100 feet, at the end of June. Prof. Neumann obtained his two type-specimens in the Omo district of Uba, close to Gofa.

The name "*pachyrhyncha*" which has been bestowed on this bird is rather misleading, for its bill does not differ in size from that of *P. albifrons*.

The West African *P. frontalis* (Swains.) is easily recognised by the slate-black colour of its plumage in both sexes, the male having a white forehead.

#### 184. PINAROCHROA SORDIDA SCHOANA.

*Pinarochroa sordida* (Rüpp.) : Reich. iii. p. 713 (1905).

*Pinarochroa sordida schoana* Neumann, J. f. O. 1906, p. 290.

*Pinarockroa sordida djamdjamensis* Reich. iii. p. 714 (1905) [part.].

The specimens of this Bush-Chat sent by Zaphiro were obtained on Mt. Yeka, 8000 feet, close to Addis Abbaba, in September, and in the Managasha Forest in October. They appear to differ slightly from typical examples of *P. sordida*, procured by Blanford near Antalo and on the Wadela plateau, in being rather larger and in having a somewhat longer wing and tail.

<i>P. sordida.</i>				<i>P. s. schoana.</i>			
		Wing.	Tail.			Wing.	Tail.
		mm.	mm.			mm.	mm.
1 male	.....	65	45	4 males	.....	70-76	49-52.5
1 female	.....	67	45	4 females	.....	71-74.5	48-51.5

#### 185. CERCOMELA FUSCICAUDATA.

*Cercomela fuscicaudata* (Blanf.); Reich. iii. p. 712 (1905).

The only example of Blanford's Mountain-Chat in the National collection was the type-specimen, a male, obtained in Bogosland. Zaphiro secured two female examples of this rare bird on the north-eastern shore of Lake Rudolf in August. One closely resembles the male type; the other has the breast darker, washed with smoky brown. The wing-measurement is 78 mm. (3.05 in.) in both specimens.

#### 186. ŒNANTHE BOTTE.

*Saxicola bottæ* Bonap.; Reich. iii. p. 720 (1905); Neumann, J. f. O. 1906, p. 293.

The Abyssinian Chat was met with in the Managasha Forest and about Addis Abbaba in October.

#### 187. ŒNANTHE LEUCOMELA.

*Motacilla leucomela* Pallas, Nov. Comm. Sci. Petrop. xiv. i. p. 584 (1770).

*Saxicola pleschanka* Lepech.; Reich. iii. p. 728 (1905); Neumann, J. f. O. 1906, p. 293.

The Eastern Pied Wheatear was obtained near Addis Abbaba and also at Lake Zwai.

188. *CENANTHE ISABELLINA*.

*Saxicola isabellina* Cretzschm. ; Reich. iii. p. 721 (1905) ; Neumann, J. f. O. 1906, p. 293.

The Isabelline Wheatear was met with about Addis Abbaba and also at Lake Zwai, between the months of October and January.

189. *SAXICOLA RUBETRA*.

*Pratincola rubetra* (Linn.) ; Reich. iii. p. 731 (1905) ; Neumann, J. f. O. 1906, p. 295.

A pair of Whin-Chats were procured at Walamo on the 13th of September.

190. *SAXICOLA MAURA*.

*Pratincola maurus* (Pall.) ; Reich. iii. p. 734 (1905).

*Pratincola rubicola maura* Neumann, J. f. O. 1906, p. 295.

Two males of the Indian Stone-Chat were obtained at Lake Zwai on the 19th of January.

191. *SAXICOLA ALBOFASCIATA*.

*Pratincola albofasciatus* (Rüpp.) ; Reich. iii. p. 735 (1905).

*Pratincola caprata albofasciata* Neumann, J. f. O. 1906, p. 297.

The Black-and-White Stone-Chat is widely distributed over southern Abyssinia, and a very large series was collected throughout the greater part of the year, exhibiting all the changes of plumage in both sexes. Young birds in first plumage were procured in June and July.

Family TIMELIIDÆ.

192. *CRATEROPUS SMITHI*.

*Crateropus smithi* Sharpe ; Erlanger, J. f. O. 1905, p. 738 ; Reich. iii. p. 664 (1905).

*Crateropus leucopygius lacuum* Neumann, J. f. O. 1906, p. 261.

Donaldson Smith's Babbling-Thrush was met with at Lake Koya, near Lake Zwai, and at Dalota and Bourka in Arussi in January and February. Prof. Neumann

has separated the birds found in the lake district (from Lake Zwai to Lake Ganjule) under the above name, but the characters which are said to distinguish this subspecies from typical *C. smithi* do not appear to be of any importance.

193. *CRATEROPUS OMOËNSIS*.

*Crateropus leucopygius omoënsis* Neumann, J. f. O. 1906, p. 262.

The Omo Babbling-Thrush is rather a distinct form and is easily recognised by having the lores, fore-part of the cheek, chin, and throat blackish. It was found by Zaphiro in the same country where Mr. Neumann obtained it, viz., at Kullo (June), at Gofa and Uba (July), and at Walamo and Kambata (September), at altitudes varying from 4000 to 7000 feet. The birds killed in July are in moult.

194. *CRATEROPUS TENEBROSUS*.

*Crateropus tenebrosus* Hartl. Zool. Jahrb. 1887, p. 313, pl. xii. ; Reich. iii. p. 662 (1905).

The Natural History Museum now possesses five examples of this rare Babbling-Thrush. A male in the present collection was obtained at Tehega, in Gofa, 5500 feet, on the 25th of June, and Mr. Gilbert Blaine recently procured a pair on the Assua River, Bahr-el-Jebel (Equatorial Province of Uganda). In addition to these the Museum possessed two specimens from Fort Berkeley, close to the last-named locality. The plate of *C. tenebrosus* given by Hartlaub (*t. c.*) is not very satisfactory, the bird being rather too rufous, especially on the flanks. The pair shot by Mr. Blaine do not appear to differ in plumage, except that the male is somewhat greyer on the chest.

195. *ARGYA RUBIGINOSA*.

*Argya rubiginosa* (Rüpp.) ; Erlanger, J. f. O. 1905, p. 738 ; Reich. iii. p. 672 (1905).

The Rufous-breasted Babbling Thrush was met with at Suksuki near Lake Zwai in January ; to the north-east of

Lake Rudolf in July; and in Baroda in September. As already noted ('Ibis,' 1901, p. 661) Abyssinian examples of this bird are quite similar to those found in Equatorial Africa.

Of recent years the National collection has received a number of additional examples of the Rufous-faced Babbling-Thrush (*A. heuglini* Sharpe), afterwards, through a misunderstanding, renamed *A. saturata* Sharpe. The species is apparently confined to the coastal districts of East Africa.

#### ARGYA SHARPII.

*Argya sharpii* Ogilvie-Grant & Reid, Ibis, 1901, p. 662.

A large example of *Argya* procured by Donaldson Smith on the upper part of the Webi Shebeli below its junction with the Webi Daroli or Darde on the 27th of August 1904, has been separated as *Argya sharpii*. Dr. Reichenow has united this large form with *A. rubiginosa*, but there seems to be no particular reason for doing so and several excellent reasons for keeping it distinct. I have again examined the type-specimen which is in the Tring Museum. Its large size, coupled with its distinct geographical distribution, seems fully to justify its separation as a distinct subspecies.

#### *A. rubiginosa.*

#### *A. r. sharpii.*

Wing 3.35-3.5 ins. (=85-89 mm.).

Wing 3.75 ins. (=96 mm.).

Tail 4.0-4.3 „ (=102-110 mm.).

Tail 5.0 „ (=122 mm.).

#### 196. LIOPTILUS ABYSSINICUS.

*Lioptilus abyssinicus* Ogilvie-Grant, Ibis, 1900, p. 173.

*Alcippe abyssinica* (Rüpp.); Reich. iii. p. 741 (1905); Erlanger, J. f. O. 1905, p. 750.

*Alcippe abyssinica abyssinica* Neumann, J. f. O. 1906, p. 281.

A female example of the Abyssinian Flycatcher was shot at Manno, in Jimma, on the 13th of May, and a male at the Gojeb River, Kaffa, on the 26th of May. The comparatively weak rictal bristles serve to distinguish the members of this genus from true *Alcippe* from India.

## Family PYCNONOTIDÆ.

## 197. PYCNONOTUS ARSINOË SCHOANUS.

*Pycnonotus arsinœ schoanus* Neumann; Erlanger, J. f. O. 1905, p. 712; Reich. iii. p. 840 (1905).

*Pycnonotus barbatus schoanus* Neumann, J. f. O. 1906, p. 240.

The Abyssinian Bulbul was found near Addis Abbaba, at Lake Zwai, and at Bourka, Arussi; also in the Charada Forest, Kaffa, 4000–6000 feet.

This dark-backed bird is easily distinguished from the paler typical form of *P. arsinœ*, found in the Nile Valley. It differs even more from the Somaliland bird, *P. a. somaliensis* Reich., which, though also regarded as a subspecies of *P. arsinœ*, really belongs to a rather distinct group and is perhaps entitled to full specific rank. It is characterised by the marked white patch behind the ear-coverts and by having the dark feathers of the chest continued in a series of blotches over the upper breast. In *P. arsinœ* and *P. a. schoanus* the dark chest is sharply defined from the white breast.

## 198. PHYLLOSTREPHUS STREPITANS.

*Phyllostrephus strepitans* (Reich.); Neumann, J. f. O. 1906, p. 240.

As Prof. Neumann has pointed out, *P. sharpii* Shelley (Ibis, 1880, p. 331) and *P. pauper* Sharpe (P. Z. S. 1895, p. 489), are undoubtedly synonymous with *P. strepitans* (Reich.) (Orn. Centralb. 1879, p. 139).

This species has been named (or misnamed) by Stark, Reichenow's Bristle-necked Bulbul, but in very few examples are these filo-plumes visible. Examples were procured at the following localities: Gofa in June; the north of Lake Rudolf in July; Mircha and Konso in August; and Lake Bakate in September.

## Family CAMPOPHAGIDÆ.

## 199. CORACINA CÆSIA.

*Graucalus cæsius* (Licht.); Ogilvie-Grant, Trans. Zool. Soc. xix. p. 389 (1910).



*Coracina cæsia* (Licht.) ; p. 221, & *Coracina pura* (Sharpe): p. 222, Shelley & Selater, B. Afr. v. pt. ii. (1912).

A pair of the Grey Cuckoo-Shrike were procured, the female at Kaffa in June and the male at Baku in July. In both specimens the wing measures 120 mm.

#### 200. CORACINA PECTORALIS.

*Coracina pectoralis* (Jard. & Selby); Shelley & Selater, B. Afr. v. pt. ii. p. 218 (1912).

A female of the Pectoral Cuckoo-Shrike was shot at Baku in July. In Shelley's work, quoted above, we are told that the sexes are alike, but this is probably a mistake. As the authority for this statement a specimen in the British Museum, procured at Salisbury by Mr. G. A. K. Marshall, is quoted. This bird has the throat grey as in the male; there is likewise a second specimen, from Caconda, in male plumage marked as a female. In all the remaining female specimens, including that obtained by Zaphiro, the throat is white.

#### 201. CAMPEPHAGA PHENICEA.

*Campephaga phænicea* (Lath.) ; Shelley & Selater, B. Afr. v. pt. ii. p. 210 (1912).

*Campephaga xanthornoides* (Less.) ; Shelley & Selater, t. c. p. 213.

The Red-shouldered Cuckoo-Shrike was procured in almost every part of the country visited, at elevations ranging from 2000 feet (Sagan River) to 6000 feet (Charada Forest in Kaffa, and Kambata).

In the Charada Forest a male of the orange-chrome-shouldered variety, *C. xanthornoides* (Lesson), was shot along with normally coloured scarlet-shouldered males, and there can be no doubt that it is merely a colour-variety of *C. phænicea*. The two forms are met with side by side from Tigrè southwards to Victoria Nyanza and westwards to the Gold Coast and Senegambia.

Probably *C. rothschildi* Neumann, from the south of Lake Stefanie, is also merely a variety of *C. phænicea*.

## Family MUSCICAPIDÆ.

## 202. MUSCICAPA GRISOLA.

*Muscicapa grisola* Linn. ; Reich. ii. p. 449 (1903).

The Spotted Flycatcher was met with at Nono, near the Gibbe River, in April, and at Walamo in September.

## 203. ALSEONAX MURINUS PUMILUS.

*Alseonax murinus pumilus* Reich. ; Reich. ii. p. 459 (1903); Neumann, J. f. O. 1905, p. 206.

*Alseonax murinus djamdjamensis* Neumann, J. f. O. 1905, p. 206.

*Alseonax pumilus* Ogilvie-Grant, Trans. Zool. Soc. xix. p. 391 (1910).

Examples of the Small Brown Flycatcher were procured at Gomma and Kaffa in May and June, but were not met with elsewhere. It might have been pointed out when describing the series of this bird from Ruwenzori, that the immature (which is easily recognised by the buff tips to the wing-coverts, etc.) has the middle of the breast and belly washed with buff, and in that stage of plumage closely resembles the adult of typical *A. murinus*. It seems doubtful if *A. m. pumilus* is really separable from *A. murinus* and is not based merely on fully adult examples. The amount of white on the throat varies much in different individuals. The two forms *A. murinus* and *A. m. pumilus* seem to occur side by side throughout their range. Probably both should be united with *A. minimus* (Heugl.) described in 1862.

As Prof. Neumann has already pointed out, it is probable that the narrowness of the base of the bill in the type-specimen of *A. minimus* is not normal.

## 204. HYLIOTA FLAVIGASTRA.

*Hyliota flavigaster* Swains. ; Reich. ii. p. 473 (1903); Neumann, J. f. O. 1905, p. 209.

The Buff-bellied Flycatcher seems to be rather a rare bird; it was met with on the Didessa River and in Kaffa.

In the male the bill and legs are black, but in skius from

Equatorial Africa the under mandible seems to be generally plumbeous. I am unable to say if this slight difference of a dark under mandible is constant in the south Abyssinian bird.

205. *PARISOMA GALINIERI*.

*Parophasma galinieri* (Guer.) ; Reich. iii. p. 743 (1905) ; Neumann, J. f. O. 1906, p. 281.

Dr. Reichenow has created the genus *Parophasma* for this Flycatcher-Warbler, but I cannot see any good reason for separating it from *Parisoma* as it is evidently of the same genus as *P. subcæruleum*, which is the type of that genus (*cf.* Ibis, 1900, p. 153).

Specimens in the present collection were procured near Addis Abbaba in October, at Kullo in June, and at Gofa in July. It should be noted that the grey plumage in this species soon becomes brownish with wear.

206. *PARISOMA PLUMBEA*.

*Parisoma plumbea* (Hartl.) ; Reich. iii. p. 521 (1905).

Two female examples of the Grey Flycatcher-Warbler were killed in the Charada Forest in May and to the east of Lake Rudolf in July. Both are in worn plumage, especially the latter. The species was procured on the Upper White Nile by Emin, but does not appear to have been recorded before from southern Abyssinia.

207. *PARISOMA BOEHMI*.

*Parisoma böhmi* Reich. ; Reich. iii. p. 521 (1905).

A female example of Böhm's Flycatcher-Warbler was procured in Konso on the 27th of August ; it is unusually pale on the flanks, having only a small patch of rufous-buff.

208. *PARISOMA LUGENS*.

*Parisoma lugens* (Rüpp.) ; Ogilvie-Grant, Ibis, 1900, p. 153 ; Reich. iii. p. 522 (1905).

Zaphiro was fortunate enough to procure a small series of Rüppell's Brown Warbler, which seems to be fairly common in the neighbourhood of Addis Abbaba, but was not met with elsewhere.

Lord Lovat found it plentiful locally in upper Lika and procured two specimens, hitherto the only representatives of this species in the National Collection.

209. *CHLOROPETA MASSAICA*.

*Chloropeta natalensis massaica* Fisch. & Reich. and *C. n. umbriniceps* Neumann; Reich. ii. p. 465 (1903).

*Chloropeta massaica* Ogilvie-Grant, Trans. Zool. Soc. xix. p. 396 (1910).

Examples of the Masai Yellow Flycatcher were procured at Jimma, Konta and Kullo, at altitudes of from 4000 to 5500 feet. The type-specimens of *C. n. umbriniceps* Neumann were obtained in Malo. The supposed darker brown colour of the crown is of no importance, and the birds collected by Zaphiro differ in no way from typical *C. massaica*.

210. *PLATYSTIRA CYANEA ÆTHIOPICA*.

*Platysteira cyanea æthiopica* Neumann, J. f. O. 1905, p. 210.

In using Prof. Neumann's name for the south Abyssinian form of *P. cyanea* (Müller) I do so with some hesitation. He has distinguished this subspecies on account of its somewhat smaller size. In the female of *P. cyanea* the foreneck and chest are uniform dark chestnut almost to the breast, only the basal margin being blackish, but in two female examples collected in May at Guma and Jimma respectively, the foreneck is chestnut widely bordered below with black, giving these parts in the two specimens referred to an unusual appearance; in a third specimen, however, from Gomma, also killed in May, the colouring of the chest is normal. Wing-measurement 60–61 mm.

211. *BATIS ORIENTALIS*.

*Batis orientalis* (Heugl.); Reich. ii. p. 481 (1903); Ogilvie-Grant, Trans. Zool. Soc. xix. p. 398 (1910).

*Batis senegalensis orientalis* Neumann, J. f. O. 1905, p. 209.

Heuglin's White-flanked Flycatcher is represented by

examples from Lake Zwai in January, Lake Rudolf in July, Lake Bakate in September, and Addis Alam in November.

As so often happens with birds of this group, Zaphiro appears to have made mistakes in ascertaining the sex of several of the specimens collected.

#### 212. *BATIS SENEGALENSIS*.

*Batis senegalensis* (Linn.) ; Reich. ii. p. 480 (1903).

A specimen marked as a male and which is no doubt immature, is similar to the female of *B. senegalensis* as regards the coloration of the underparts, having the same wide light chestnut breast-band ; but the crown and back are dark slate-grey, instead of brown washed with rufous, and the *rufous eyebrow stripe is entirely wanting*, only a short whitish supra-oral streak from the base of the bill to the eye being present. That the sex has been correctly ascertained as male is suggested by the presence of several partially black feathers on the right side of the breast indicating the black pectoral band of the adult. It is possible, nay even probable, that this immature specimen may represent an undescribed subspecies, for there is no reason to suppose that the immature male of *B. senegalensis* has a grey head, and the species has never been recorded from Abyssinia. More material is required to settle this point.

#### *BATIS POËNSIS* Alexander.

*Batis poënsis* Alexander, Bull. B. O. C. xiii. p. 34 (1903).

I may here remark that two adult male and female examples of this distinct little Flycatcher were procured by Mr. Willoughby P. Lowe at Sekondi, Gold Coast, but were wrongly identified as *Batis senegalensis* (cf. Bannerman, 'Ibis,' 1912, p. 226). It is important to mention this as the occurrence of this insular species on the Gold Coast is of interest.

#### 213. *TCHITREA VIRIDIS*.

*Tchitreia viridis* (Müll.) ; Reich. ii. p. 504 (1903).

It had been my intention to publish extensive notes on

the changes of plumage in this species and its allies, but the difficulty of arriving at any satisfactory solution of their varied plumages coupled with lack of time have obliged me to abandon the attempt for the moment. There can be hardly any doubt but that the present species and also *T. duchaillui* Cassin interbreed with some of the allied forms and that the puzzling stages of plumage often to be found among series of these birds, quite outside the normal changes from rufous to white, can only be accounted for in this way.

The present collection includes :—

*a.* An almost entirely black-and-white adult male with the tail white ; and a few chestnut feathers on the rump and mantle. Charada Forest, 3rd of June.

*b.* An adult male with the tail white and the mantle almost entirely chestnut. Sombo, near Addis Alam, 15th of November.

*c, d.* Two adult males with the outer tail-feathers chestnut, the mantle uniform chestnut. Holata, near Addis Alam, 12th of November, and Maroko, Lake Zwai, 16th of January.

*e.* An adult male in chestnut-and-black plumage with only the outer webs of the inner quills bordered with white. Jimma, 16th of May.

*f, g.* An immature male and an adult female, with chestnut back and short chestnut tail. Uba, 10th of July, and Holata, 13th of November.

#### 214. CRYPTOLOPHA UMBROVIRENS.

*Cryptolopha umbrovirens* (Rüpp.) ; Erlanger, J. f. O. 1905, p. 683.

A male example of this Flycatcher was procured in June in the Charada Forest, Kaffa, at an elevation of 6000 feet. It is unfortunately moulting and in poor condition, but appears to be referable to the typical form of this species described by Rüppell from Simen. Examples in the British Museum from Waghar, N. Somaliland (*cf.* 'Ibis,' 1910, p. 312)



are referable to the larger and darker backed *C. n. omoënsis* Neumann.

215. *BRADYORNIS GRISEUS*.

*Bradornis griseus* Reich. ; Reich. ii. p. 435 (1903) ; Neumann, J. f. O. 1905, p. 204.

*Bradornis griseus erlangeri* Reich. ; Erlanger, J. f. O. 1905, p. 680.

*Bradyornis pumilus* Sharpe ; Ogilvie-Grant & Reid, Ibis, 1901, p. 643.

The Grey Robin-Shrike was met with in the country between the north end of Lake Rudolf and Lake Stefanie, in July and August ; also about Lake Zwai and Lake Helene, in January and February. Wing-measurement 75-78 mm.

216. *BRADYORNIS GRANTI*.

*Bradyornis* sp. inc. Ogilvie-Grant, Ibis, 1907, p. 592.

*Bradyornis granti* Bannerman, Bull. B. O. C. xxvii. p. 84 (1911).

The existence of this small fulvous-breasted Robin-Shrike was first noticed by myself, when two examples were collected by Zaphiro on the Baro River. Subsequently he collected a series which clearly proved that the south Abyssinian bird was quite distinct from the allied forms. Examples were procured at the following localities : Gibbe River, Gomma, Jimma, Kaffa, Konta, Gofa, Uba, Baku, Walamo and Kambata, between April and September. The series includes a number of young birds, killed between May and July, with buff-spotted upperparts and brown edges to the feathers of the foreneck and chest, giving these parts a mottled appearance. The species is easily distinguished from its allies by its small size, darker brown upperparts, and tawny-buff underparts, characters which are less marked in a female from Kambata. This specimen also has the upperparts rather greyer than the rest of the series. Wing 76-84 mm. ; tail 67-71.

*Notes on the Genus Bradyornis.*

As great confusion exists among the species and subspecies of *Bradyornis*, I have been obliged in studying the above-mentioned species to make a careful revision of the whole group, so as to define, if possible, more clearly the various forms. I have also prepared a key to the species, as the one given in Dr. Reichenow's 'Vögel Afrikas' did not appear to me to assist one much in the identification of these difficult birds.

The forms of *Bradyornis* which I am able to recognise are represented in the National Collection by specimens from the localities mentioned below.

It should be noted that in all the species the males are considerably larger than the females and that the young birds are always more brightly coloured on the underparts than the adults, especially on the flanks and under tail-coverts.

1. *BRADYORNIS GRISEUS* Reichenow.

*Bradyornis griseus* Reichenow, J. f. O. 1882, p. 211 [Mgunda Mkali].

*Bradyornis microrhyncha* Reichenow, J. f. O. 1887, p. 62 [Irangi].

*Bradyornis pumilus* Sharpe, P. Z. S. 1895, p. 480 [Hargeisa].

? *Bradyornis parvus* Reichenow, Orn. Monatsb. xv. p. 171 (1907) [Asholi, N. Uganda].

*Hab.* Somaliland: Goolis foot-hills (*Lort-Phillips*); Waghar and Burao (*Bury*); Eil Dab, 100 miles S.S.E. of Berbera, and Galkayu, 120 miles N.W. of Obbia (*Hamerton*); Hargeisa (*Donaldson Smith*: type of *B. pumilus* Sharpe); Dabolok, Sheikh Wufi and Ujajaji (*Harker*); Farfanyer and Udveris, 3200 ft. (*Bennett Stanford*); Gerloguby (*Delamere*); Gildessa (*Pease*).

Abyssinia: Hoorsa and Melkadegaga (*Pease*); Quala, Guerague (*Degen*); N. of Lake Stefanie, 2000 ft., and N. of Lake Rudolf, 2600 ft. (*Zaphiro, Donaldson Smith*).

Uganda and B. E. A.: Loronio, River Kos, White Nile (*Emin*); Turkwel River (*Jackson*); Elgeyu, 3000 ft. (*Jackson*); Guaso Nyiro, 3000 ft. (*Delamere, Jackson*); Guaso Narok, 4300 ft. (*Jackson*); Lake Baringo (*Delamere*); Athi River (*Delamere*); Mombasa (*Fischer, Jackson*).

Wing 77-84 mm.; tail 60-65.

## 2. *BRADYORNIS PALLIDUS* (Müller).

*Muscicapa pallida* Müller, Naumannia, 1851, Heft iv. p. 28 [Abyssinia]; id. Beitr. Orn. Afr. 1854, Taf. 8.

*Hab.* Northern Abyssinia: Bogosland (*Esler*); Arriro, north of Addis Abbaba (*Lovat*).

Wing 92-96 mm.; tail 84-86.

## 3. *BRADYORNIS PALLIDUS SUBALARIS* Sharpe.

*Bradyornis subalaris* Sharpe, P. Z. S. 1873, p. 713, pl. lviii. fig. 1 [Mombasa].

*Hab.* Coastal districts of East Africa: Dar-es-Salaam (*Kirk*); Mombasa (*Wakefield*: type of *B. subalaris* Sharpe; *Percival*); Takaungu (*Percival*); Lamu (*Kirk, Jackson*); Witu (*Jackson*).

White Nile: Lango (*Jackson*); Langomeri, Gosa and Fadjuli (*Emin*); Bahr-el-Gazal (*Blaine*); Moradar (*Zaphiro*); Kaka (*Hawker*).

I am unable to distinguish coastal birds from those mer with on the White Nile. Apparently they range by way of the Tana River and the south end of Lake Rudolf westwards to the Nile. A similar distribution is observed in *B. griseus*.

Wing 80-86 mm.; tail 67-71.

Dr. Reichenow (*cf.* Vög. Afr. ii. p. 436) has united this form with *B. murinus*, but the latter is a quite distinct species and easily distinguished, as will be seen by referring to the key to the species given below.

## 4. *BRADYORNIS GRANTI* Bannerman.

*Bradyornis granti* Bannerman, Bull. B. O. C. xxvii. p. 84 (1911) [Gibbe River and Walamo].

*Hab.* Southern Abyssinia : Kambata, Walamo, Baku, Uba, Gofa, Konta, Kaffa, Jimma, Gomma, and Gibbe River (*Zaphiro* : types of *B. granti* Bannerman); Baro River (*Zaphiro*) ; Zeraf River (*Dunn*).

Wing 76-84 mm. ; tail 67-71.

5. *BRADYORNIS MURINUS* Hartl. & Finsch.

*Bradyornis murinus* Hartl. & Finsch, Vögel Ost-Afr. iv. p. 866 (1870) [Kakonda].

*Bradyornis oatesi* Sharpe, in Oates' Matabeleland, p. 314, pl. B (1881) [Makalaka].

*Bradyornis muscipina* Hartl. Abh. Bremen, xii. p. 9 (1891) [Bagamoyo].

*Bradyornis griseus* Selater (*nec* Hartl. & Finsch), Ibis, 1911, p. 419.

*Hab.* British East Africa : Guaso Nyiro, 6000 ft. (*Delamere, Lowe*) ; Amala River, 5300 ft. (*Lowe*) ; Mt. Elgon, 6000-7000 ft. (*Jackson, Kemp*) ; Laikipia, 7000-7500 ft. (*Delamere, Jackson, Kemp*) ; Mt. Kenia, 4000 ft. (*Delamere, Jackson*) ; Lake Naivasha, 6300 ft. (*Jackson*) ; Eldoma Ravine, 7500 ft. (*Jackson*) ; Nairobi, 5400 ft. (*Jackson*) ; Machakos (*Hinde*).

Uganda : Kigoma, 4000 ft., and Kikonda, 3600 ft. (*Jackson*) ; S.E. Ruwenzori, 3400 ft. (*Legge & Dent*) ; Mulema, 5000 ft. (*Doggett*). Belgian Congo : N. of Lake Tanganyika, 3000 ft. (*Carruthers*) ; Lualaba River, Kalungwisi River, Lake Mweru (*Neave*) ; Lake Bangweolo (*Neave*). Nyasaland : N. of Lake Nyasa (*Sharpe*) ; Nyika Hills, 6000 ft. (*Whyte*) ; Kasungu and Bua (*Sharpe*) ; Angoni-land (*Sharpe*) ; Zomba (*Whyte*) ; Fort Lister (*Whyte*) ; Mt. Milanji (*Whyte*). Portuguese East Africa : Cheringoma Dist., Mozambique (*Cavendish*) ; Coguno, Masambeti and Beira (*C. H. B. Grant*). Rhodesia : Chirinda, Gazaland, 3500 ft. (*Swynnerton*) ; Salisbury, 5000 ft. (*Marshall & Swynnerton*) ; Makalaka (*Oates* : type of *B. oatesi* Sharpe). South Africa : Zululand (*Woodward*) ; Klein Letaba and Legogot, Transvaal (*C. H. B. Grant*). Angola : Kakonda,

Benguela (*Anchieta* : cotype of *B. murinus* Hartl. & Finsch).

Wing 85–101 mm. ; tail 70–79.

6. *BRADYORNIS MURINUS MODESTUS* Shelley.

*Bradyornis modesta* Shelley, Ibis, 1873, p. 110 [Abokobi].

? *Bradyornis pallidus nigeriæ* Reichenow, Orn. Monatsb. xviii. p. 95 (1910) [Adamaua].

*Hab.* Gold Coast Hinterland : Dokonkade (*Alexander*) ; Abokobi = Kintampo (*Shelley* : type of *B. modestus* Shelley ; *Alexander*) ; Gambaga (*Alexander*).

Southern Nigeria : Anambara River (*Lowell*).

Northern Nigeria : Semaukar River ; Tarkum ; Bima ; Kina, River Gongola ; Badiko ; Leri (*Alexander*).

French Congo ; Shari River at Iddio, Manjafa, Ft. Archambault (*Alexander*) ; Gribingi River (*Alexander*) ; Tomi River, Yakola and Krebeje (*Alexander*).

Wing 80–89 mm. ; tail 66–70.

7. *BRADYORNIS MARIQUENSIS* A. Smith.

*Bradornis mariquensis* Smith, Ill. Zool. S. Afr., Aves, pl. 113 (1847) [Marico River, Transvaal].

*Hab.* South Africa (*Smith* : types of *B. mariquensis* Smith) ; Griqualand West (*Atmore*) ; Transvaal (*Ayres, Buckley*) ; Rustenburg (*Lucas, Ayres*) ; Macloutsie River (*Jameson*) ; Tati and Gerufa (*Oates*) ; Bamangwato (*Buckley*) ; Zambesi (*Bradshaw*) ; Damaraland (*Andersson*) ; Great Namaqualand (*Andersson*).

Wing 84–90 mm. ; tail 72–79.

8. *BRADYORNIS INFUSCATUS* A. Smith.

*Saricola infuscata* Smith, Ill. Zool. S. Afr., Aves, pl. xxviii (1839).

*Bradyornis major* Bonap. Consp. Av. i. p. 267 (1850) [descrip. nulla].

*Hab.* South Africa : Western Cape Colony between Oliphant River and Orange River (*Smith* : types of *S. infuscata* Smith) ; Port Nolloth, Little Namaqualand (C. H.

*B. Grant*); Klipfontein, Little Namaqualand (*C. H. B. Grant*).

Culmen 19 mm.; tarsus 30-31; wing 108-117; tail 79-84.

9. *BRADYORNIS INFUSCATUS SEIMUNDI*, subsp. n.

*Bradyornis infuscatus* Sharpe (*nec* Smith), *Ibis*, 1904, p. 317 [Deelfontein].

*Adult male and female.* Similar to *B. infuscatus* but with a much smaller bill, the culmen measuring 16 mm. from the feathers on the forehead to the tip. Wing 108-117 mm.; tail 79-89; tarsus 28.

*Hab.* Cape Colony: Deelfontein (*Seimund* & *C. H. B. Grant*: types of *B. i. seimundi* Ogilvie-Grant); Hopetown (*Almore*); Kuruman (*Woosnam* & *Dent*); Warrenton, Vaal River (*Woosnam*); Hart River (*Jameson*); Transvaal (*Ayres*).

10. *BRADYORNIS INFUSCATUS BENGUELLENSIS* Sousa.

*Bradyornis benguellensis* Sousa, *J. Lisboa*, xliii. p. 160 (1886).

*Hab.* Lehutitu, Western Kalahari, 3000 ft. (*Woosnam* & *Legge*); Great Namaqualand (*Andersson*); Damaraland (*Andersson*); Benguela (*Anchieta*: cotype of *B. benguellensis* Sousa).

Wing 108-114 mm.; tail 75-81.

11. *BRADYORNIS INFUSCATUS ANSORGII*, subsp. n.

*Bradyornis benguellensis* Ogilvie-Grant, *Ibis*, 1912, p. 393 [part.].

*Adult male and female.* Similar to *B. i. benguellensis* Sousa, but with the upperparts distinctly greyer and the underparts much paler and whiter, the breast only being washed with pale brownish-grey, instead of pale isabelline; while the vent and under tail-coverts are pure white.

Wing 97-109 mm.; tail 69-76.

*Hab.* Northern Benguela (*Monteiro*); Catumbella and Huxe (*Ansorge*: types of *B. i. ansorgii* Ogilvie-Grant).

A series of this pale subspecies was procured by Dr. W. J. Ansorge in August and September. They may be recognised at a glance from the more southern *B. i. benguellensis*.



Key to the Species of *Bradyornis* \*.

- I. Exposed portion of culmen from feathers on forehead to tip 13 mm. or less. Tarsus about 20 mm. or less.
- A. Crown light brownish-grey or grey with distinct dark brown shaft-streaks: rest of upperparts light brownish-grey or grey. Wing 77-84 mm. .... *B. griseus*.
- B. Crown dark brown, greyish-brown or rufous-brown, not distinctly streaked or very rarely so.
- a. Crown and upperparts dark earth-brown; underparts suffused with rufous-buff. Size smaller; wing 76-84 mm. .... *B. granti*.
- b. Crown and upperparts pale brown; throat and underparts whitish washed with pale buff on the breast and flanks.
- a'. Size larger: wing 92-96 mm. .... *B. pallidus*.
- b'. Size smaller: wing 80-86 mm. .... *B. p. subalaris*.
- c. Crown and upperparts greyish-brown; throat pure white contrasting strongly with the pale greyish-brown breast and sides.
- c'. Size larger: wing 85-101 mm. .... *B. murinus*.
- d'. Size smaller: wing 80-89 mm. .... *B. m. modestus*.
- d. Crown and upperparts rufous-brown, underparts pure white. Wing 84-90 mm. .... *B. mariquensis*.
- II. Exposed portion of culmen from feathers on forehead to tip 16-19 mm. Tarsus 27-31 mm.
- C. Upperparts brown; underparts mostly buffy-brown, contrasting with the whitish-buff throat and middle of the belly. Wing 108-117 mm.
- e. Culmen long, 19 mm.; tarsus 30-31 .... *B. infuscatus*.
- f. Culmen shorter, 16 mm.; tarsus 27-28 .... *B. i. seimundi*.
- D. Upperparts pale brown: breast and flanks pale brownish-buff; throat and belly white. Wing 108-114 mm.; culmen 16; tarsus 27-28. .... *B. i. benguellensis*.
- E. Upperparts greyish-brown; underparts mostly white except the breast and flanks which are pale brownish-buff, with white edges to the feathers. Wing 97-109 mm.; culmen 16; tarsus 27-28 .... *B. i. ansorgii*.

\* I have not examined *B. sylvia* Reichenow, Orn. Monatsb. xvii. p. 42, from Rio Campo, Cameroon. It appears to be a small bird; wing 73 mm.; tail 60.

## 217. MELENORNIS PAMMELAINA.

*Melenornis pammelaina* (Stanl.); Reich. ii. p. 441 (1903); Neumann, J. f. O. 1905, p. 205.

*Melenornis pammelaina* Ogilvie-Grant, Ibis, 1907, p. 592.

A large series of Stanley's Cuckoo-Shrike was collected at the Didessa River and Gomma in May, at Gofa and Kubo in June, again at Gofa and at Uba in July, and round Lake Zwai in January and February. The adult birds killed in May and June are in worn plumage and much blacker than those killed in January and February, which are comparatively freshly moulted and have the plumage of a more slaty tint. It seems probable that *M. schistacea* Sharpe is founded on freshly moulted birds, and that Dr. Reichenow was right in uniting it with *M. pammelaina* Stanley. Immature birds killed in the last week in June have the upper- and under-parts blackish heavily spotted with rufous-buff.

## 218. DIOPTRORNIS CHOCOLATINUS.

*Dioptrornis chocolatinus* (Rüpp.); Reich. ii. p. 441 (1903); Neumann, J. f. O. 1905, p. 205; Erlanger, J. f. O. 1905, p. 681.

*Muscicapa reichenowi* Neumann, Orn. Monatsb. x. p. 10 (1902) (Gimirra).

*Dioptrornis reichenowi* Reich. ii. p. 441 (1903); Neumann, J. f. O. 1905, p. 205.

A large series of this Grey Robin-Shrike collected over a wide area from Addis Abbaba southwards to Gofa between the months of June and November, clearly shows that the differences believed by Neumann to be characteristic of his *M. reichenowi* are partly due to age and partly seasonal. The specific name "*chocolatinus*" is not a very appropriate one; since freshly moulted old birds have the upperparts darker and much greyer than birds in first plumage which are brownish-grey. This point is clearly proved by quite young specimens still partially in the first spotted plumage and which are assuming greyish-brown feathers on the back; all the immature birds which have completed their first moult may be recognised by having the greater wing-coverts

edged with brownish. Most old birds killed between January and May, or even June, are browner, the upperparts being in worn plumage.

A nearly white nestling was procured in the Charada Forest, Kaffa, on the 2nd of June; other normally-coloured young were met with about the same date and in July.

#### Family HIRUNDINIDÆ.

##### 219. HIRUNDO RUSTICA.

*Hirundo rustica* Linn.; Reich. ii. p. 406 (1903); Neumann, J. f. O. 1905, p. 200; Erlanger, *t. c.* p. 675.

The Common Swallow was met with in the lake country at Walamo and Lake Zwai and at Bourka, Arussi, in September, January and February.

##### 220. HIRUNDO PUELLA.

*Hirundo puella* Temm. & Schl.; Reich. ii. p. 413 (1903); Neumann, J. f. O. 1905, p. 201; Erlanger, *t. c.* p. 677.

The Lesser Stripe-breasted Swallow was only met with in two places, at Guma east of the Didessa River in April and at Gomma in May.

##### 221. HIRUNDO MELANOCRISSA.

*Hirundo melanocrissa* (Rüpp.); Reich. ii. p. 419 (1903); Neumann, J. f. O. 1905, p. 201.

The Abyssinian Mosque-Swallow was obtained round Addis Abbaba in April, September and October; also at Gofa in July.

In the most mature birds, both male and female, the shaft-streaks on the feathers of the chest and upper breast are wanting. Two young female examples killed on the 25th of April are in moult, the underparts are pale whitish-buff with many half-grown rufous-buff feathers on the chest.

##### 222. HIRUNDO SENEGALENSIS.

*Hirundo senegalensis* Linn.; Reich. ii. p. 415 (1903); Neumann, J. f. O. 1905, p. 201; Erlanger, *t. c.* p. 677.

The Great African Mosque-Swallow was met with at the Akaki River, south of Addis Abbaba, in October; at

Kaffa, Gofa, Lake Rudolf, and Walamo in June, July and September; and at Bourka, Arussi, in February. In two male examples the under tail-coverts are spotted or tipped with black.

223. *HIRUNDO SMITHI*.

*Hirundo smithi* Leach; Reich. ii. p. 410 (1903); Neumann, J. f. O. 1905, p. 201; Erlanger, J. f. O. 1905, p. 676.

The Wire-tailed Swallow was found at Gofa, Uba, Baroda and Walamo between June and September. An immature female with the head brown tinged with rufous above the eye and on the occiput, and with the upperparts sparingly glossed with dark greenish-blue, was killed at Baroda in September.

224. *PSALIDOPROCNE ANTINORII*.

*Psalidoprocne antinorii* Salvad.; Reich. ii. p. 429 (1903); Neumann, J. f. O. 1905, p. 202; Erlanger, *t. c.* p. 679.

Antinori's Rough-winged Swallow was met with in Jimma, Kaffa, Kullo, Gofa and Baku, between May and July.

A young female from Adie Kaka, in Kaffa, killed on the 10th of June, has the crown and back dull bronze-brown, without any purple gloss, and the underparts, especially the breast and belly, smoky-brown without any gloss. The under wing-coverts are mostly brownish-black, while in the adult they are pure white.

225. *PSALIDOPROCNE BLANFORDI*.

*Psalidoprocne blanfordi* Weld-Blundell & Lovat; Ogilvie-Grant, Ibis, 1900, p. 178.

An adult male of Blanford's Rough-winged Swallow, obtained at Didessa on the 5th of May, differs slightly from the type-specimen, which was killed a little further east at Bilo, in having the underparts rather greener. An immature male was also shot in the same neighbourhood at Limmu, on the Urguessa River, on the 2nd of May. There can, I think, be no doubt that this species is quite distinct from *P. pristoptera* (Rüpp.) (*cf.* Neumann, J. f. O. 1905, p. 203).

The iris in the adult bird is black : in the younger specimen "blue."

226. *PSALIDOPROCNE PRISTOPTERA*.

*Psalidoprocne pristoptera* (Rüpp.); Reich. ii. p. 429 (1903); Neumann, J. f. O. 1905, p. 202.

An adult male of the Blue Rough-winged Swallow was procured at Roke, to the west of Addis Abbaba, on the 24th of April. It is very distinct from the other species mentioned above, having the entire upper- and underparts deep black glossed with steel-blue.

227. *RIPARIA RUGIFUGULA*.

*Riparia rufifugula* (Fisch. & Reich.); Reich. ii. p. 400 (1903); Neumann, J. f. O. 1905, p. 200; Erlanger, *t. c.* p. 675.

A single male example of Fischer's Rock-Martin was procured at Dissa, Kullo, 4000 feet, on the 22nd of June.

228. *RIPARIA PALUDICOLA MINOR*.

*Riparia minor* (Cab.); Reich. ii. p. 397 (1903); Erlanger, J. f. O. 1905, p. 674.

A male of the Sudan Lesser Sand-Martin was procured at Lake Zwai in January and a female at the Gato River, Konso, in August. The wing-measurement in the male is 109 mm., in the female 110. At Antoto a longer-winged specimen (wing 117 mm.) was killed in October, but it appears to be only an unusually large individual.

229. *RIPARIA CINCTA ERLANGERI*.

*Riparia cincta* (Bodd.); Reich. ii. p. 394 (1903); Neumann, J. f. O. 1905, p. 200.

*Riparia cincta erlangeri* Reich.; Erlanger, J. f. O. 1905, p. 673.

Three examples of the Brown-collared Sand-Martin obtained near Addis Abbaba in April and October belong to the slightly larger northern form which has been distinguished as *R. c. erlangeri*.